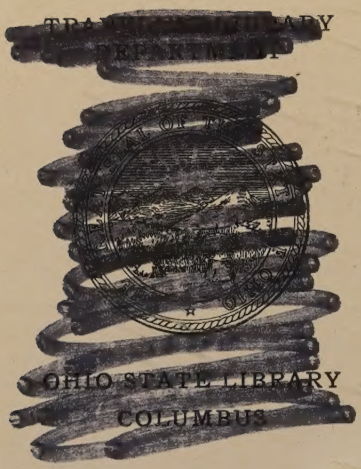
GUIDANCE OF CHILDHOOD AND YOUTH
READINGS IN CHILD STUDY

COMPILED BY

CHILD STUDY ASSOCIATION OF AMERICA



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GUIDANCE OF CHILDHOOD AND YOUTH

READINGS IN CHILD STUDY

PUBLICATIONS
FOR THE
CHILD STUDY ASSOCIATION
OF AMERICA

EDITED BY BENJAMIN C. GRUENBERG

OUTLINES OF CHILD STUDY

GUIDANCE OF CHILDHOOD AND YOUTH

(READINGS IN CHILD STUDY)

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READINGS IN CHILD STUDY

COMPILED BY

CHILD STUDY ASSOCIATION OF AMERICA

EDITED BY

BENJAMIN C. GRUENBERG

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FOREWORD

In the "Outlines of Child Study" the Federation for Child Study (since then incorporated as the Child Study Association of America), placed in the hands of parents, teachers, social workers, camp directors, and others who have to deal intimately with children, a study manual that has proved to be of great practical value. The present volume of Readings is the logical sequel, prepared to meet the generally recognized need for a compact body of reading material covering authoritatively the more important aspects of child nature as disclosed by modern studies.

While a great many of the selections are "classical," in the sense that they were written when the child study movement was still very young, the point of view of the compilation as a whole is believed to be quite modern. From this point of view the child is considered as an organism, rather than as a finished automaton, for example, or as a pure intellect. The implications of this concept are many, and affect our attitude toward the child at every point.

There is implied the process of constant change or development, with the passing of time; there is implied the presence of innate impulses that drive to a variety of actions that may take no account whatever of the proprieties, of the comfort of adults, or even of the safety of the child himself. There is implied the hope that the conduct and attitudes of the growing child, though derived from native impulses, are nevertheless subject to modification through experience, leaving for adults the responsibility of providing the suitable conditions and experiences.

From this point of view the child is considered as primarily neither moral nor immoral, but capable of acquiring both a form of behavior that is socially acceptable, and a set of attitudes that are essentially social and moral — or the opposite.

From this point of view the management of the child is considered as essentially a problem in maintaining the health of the developing individual — especially what has here been called mental health. It is assumed that the mental health of the child depends upon his finding adequate outlets for his impulses and satisfactions for his desires. At the same time it is recognized that the individual does not live merely for the moment, and that he does not live by himself, but only in rela-

tion to other people. The manner in which his impulses find their outlet has a bearing upon his continuous well-being and upon his continuous acceptability to the community of which he is a part. His mental health requires not only that he do what he likes to do, but also that he receive what he wants — and this includes approval by others, affection from others, recognition of his personality, a place in the hearts of his fellows.

Mental health requires, from a somewhat different angle, that the individual find values in life — from his activities, from his companions, from the impressions that come to him, from the transformations he is able to work upon his world. These values, however, are not absolute or standard units, like dollars or hours of play. They depend upon the individual as he is at the time. We are therefore warned against imposing upon children adult standards and adult values. We want the children to grow in appreciation as well as in power and skill; but such growth comes only from progressive experience, not from constantly insisting upon compliance with an impossible adult ideal.

Facing the fact that the child has natural impulses that deserve consideration does not mean letting the child do always and everywhere what his impulses drive him to do. It means finding ways for directing his energies into channels that will lead to increasing satisfactions and better relations with others. Thus we do not have to decide the question whether or not a child should be made to obey, whether or not a child should fight, whether or not a child should invent fictions; whether or not he should belong to a gang, and so on. In each case the problem is one of *how*, and to *what end*, should a child obey, and under what circumstances; *when* and *how* and *what* should he fight.

This point of view makes it virtually impossible to prescribe rules for the proper handling of each situation that may arise; it implies that those who are to manage children will adopt an understanding and sympathetic attitude and that the practical application of general principles will emerge from meeting with this attitude each specific situation. Moreover, it recognizes that there are still many moot problems, both as to theory and as to practice. This means that in several cases the selections on a given topic do not appear to be of one mind; or that selections in different parts of the book cannot be readily reconciled.

The selection of topics as well as the order of arrangement rests upon the cumulative experience of the Child Study Association, which has worked with increasing numbers of study groups for nearly forty years, and has latterly coöperated with various other organizations

and agencies in the field of parental education. The Association has had available for guidance in this matter not only records of study-group minutes and the ripened judgment of its leaders, but also hundreds of letters asking for help sent in directly and through one of the women's magazines. In this arrangement the most frequently asked questions are considered at the beginning, leaving for later consideration the more generalized topics and the broader home and community problems. While the chapters are numbered continuously without separation of the series into subdivisions, the Table of Contents shows a grouping of chapters under four headings that will be found helpful as a clue to the order of topics. Since, however, the selections are intended to be used in relation to some plan of study, or in relation to the needs of the individual, it is not expected that the sequence will be too rigidly followed by the reader.

In the preparation of the text, literally hundreds of books and bound volumes of periodicals were examined. Over thirty people have worked on the selection of citations. After the material on each topic was assembled, it was read critically by four different readers, to reduce to approximately a workable unit, to eliminate duplications, to insure a balanced consideration. After this reduction it was again read by a committee of four, and finally edited. This edited material was then sent to various individuals for critical reading; and in many instances the unit was "tried out" on one or several active study groups. From these criticized and tested sheets the final copy was edited.

The text printed under the name of any author is actual quotation from the source indicated, not an abstract. Condensation has been brought about by the omission of passages, indicated by a series of periods. This has made necessary occasionally a slight change in wording, to preserve continuity of thought or to avoid ambiguities; but in no case has the author's intent been changed. The subheadings for the sections are for the most part the editor's, and are placed in square brackets unless they are taken from the original source. The introductory matter for each chapter was prepared by the editor.

This volume represents a coöperative effort in which the leaders and the staff of the Child Study Association played the principle rôle, both as to initiating the project and as to supplying expert counsel and a large part of the active work. It includes further the services of a large number of volunteer workers, the courtesy of the authors and publishers of the books and articles from which selections have been made, and the financial support of the Laura Spelman Rockefeller Memorial, as part of its more comprehensive contribution to the cause

of parental education. It is impossible to acknowledge in detail the help received from the many sources indicated in general; but all who have taken part in the project will feel the satisfaction of having added to the lasting welfare of countless children.

It is hoped that the book will be of value to large numbers of that growing body of men and women — parents who really wish to understand — and to those who have a professional concern with children.

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GUIDANCE OF CHILDHOOD AND YOUTH

READINGS IN CHILD STUDY

READINGS IN CHILD STUDY

I. ASPECTS OF DISCIPLINE

THERE is a conflict between the child's demand for freedom and the community's demand for discipline. This conflict first shows itself in the form of disobedience on the part of the child and of repression of the child on the part of the adult. Authority, embodied in the parent and representing the wisdom of the race and the obvious needs of social living, commands: Do this! The child, knowing nothing of social needs and proprieties, continues his own activities without concern. Or, authority, representing the helpful guide, philosopher, and friend, warns the child: Don't do that! But the impulse driving the young organism to adventure or experimentation asserts itself, perhaps at serious risk to personal well-being or to valuable property.

Now this conflict between what the child is at first blindly impelled to do or later consciously desires, and what human experience and the conditions of life require that he do or avoid doing, is at bottom the problem of freedom and discipline. On the one hand, we cannot let the child do always and everywhere what he feels like doing; that kind of freedom would lead him soon to self-destruction. On the other hand, we cannot consent to converting the child into an automaton controlled in all his actions by external compulsion; that kind of discipline is no less destructive of all that makes life worth living.

This conflict may be variously considered as one between implicit and reasoned obedience, or as one between spontaneous and forced attention, or as one between interest and predetermined forms in guidance and training. The problem becomes eventually not that of choosing between leaving the child to his own resources and forcing him to adopt our forms and conventions, but rather a problem of so utilizing the child's impulses and interests as to develop within him adequate control of self and suitable guidance for his own further conduct and development.

It is possible to get the child at a rather early age to comply with rules and regulations; but we need not assume that there is a special instinct or disposition for "law-abidingness." It is more helpful appar-

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ently to recognize that the child readily adopts a routine, a uniformity of procedure, and then uses this uniformity both as a guide in new situations and as a justification for demanding harmonious conduct of others.

In a true sense the child's "law" grows out of usage or custom, just as does the statute promulgated by the legislature. Training children into obedience to law would seem then to be a problem in getting them to assimilate progressively the routine and customs of the nursery, of the school, of the playground, of the "gang," and so on to the routine and customs of the adult community; and with the assimilation of customs goes automatically the fixing of loyalties.

A further word of caution is perhaps necessary as to the implications of the term "law" as used in the consideration of obedience. Most of our thought regarding spiritual values comes from a prescientific age; it is almost inevitable that the older writers, with all their merit, should have thought of *law* in an absolute sense. (See, for example, Kirkpatrick, p. 3.) With the development of more scientific analysis of our problems, and especially with more thorough analysis of the processes of the human soul, we may replace the older concept of *law* in these discussions, as something fixed and more or less arbitrarily imposed from without, with the more fluid but not less serviceable concept of *principle*, or even with *ideal*. This does indeed permit a great deal of individual variation as to what is to be considered right, as to what principles are to be observed, as to what ideals are to be pursued. But the practical effect would be the same, except for the possibility of avoiding in many cases the conflict between what one feels he wants to do and what he feels he must do. It should, in other words, help us to bring up men and women who more readily and wholeheartedly accept what *must* be done as that which they *wish* to do.

Most adults take for granted both the righteousness and the effectiveness of punishment as a means of dealing with the various wrongdoings of children and other people.

A philosophy of punishment or of other dealing with children must take into account not only the immediate purpose of preventing certain evils in conduct, but also the remoter purpose of bringing about a sound attitude on the part of the individual toward mistakes and wrong doing on the part of those over whom he will later have more or less authority. In this connection Barnes[1] raises a question that deserves serious consideration: "Where punishment rests on the idea of getting even, it does not matter much what the culprit thinks or feels; if it rests on

[1] In *Studies in Education*, Volume 2, p. 216. 1903.

fear, we have only to make the punishment severe enough to produce fright; but if we are to cure the mind or educate it away from crime, then the first and prime question is: How does the guilty one think and feel about what he has done and about the punishment we propose to administer?"

In seeking our guide to management in the impulses of the child we must learn to accept the organism with its native capacities and tendencies as we find it. Instead of trying to replace the native impulses with others, we must try to find new channels for their expression. The objectionable deed is at any given moment an index of the child's whole system of reacting to his environment; it should be our business to interpret his conduct and to redirect his activities into suitable forms, as well as to cultivate his attitudes toward people and things — and toward his own impulses.

OBEDIENCE AND CONFORMITY TO LAW*

EDWIN A. KIRKPATRICK

[**The "must" and desire.**] — Every child must be conformable to law yet free in some respects. Only a well-developed personality, in whose character law has become an inherent part, can be a law unto himself. The "eternal must" lies back of the individual and only after it has been a part of life's experience can it be an effective basis of the ideal of duty. Nothing can be more unfortunate for an individual than to be governed by no law save that of his own desires. During this period of development is the time for the establishment of standards of conduct both in the form of more or less blind habits and in the form of conscious ideas and ideals. . . . A certain amount of compulsion is therefore necessary during the school period in order that the child may be fitted not only for the tasks of manhood and womanhood but for the position of a useful citizen in a society where every man does not "what is right in his own eyes" but conforms to the expressed will of society in the form of laws.

[**Obedience as conformity.**] — Obedience must at first be to the child personal obedience, but it should become more and more plain to him that the one he obeys is not forcing his own wishes upon him but is merely the enforcer of laws that must also be obeyed by others. The reason for these laws does not usually need to be explained in detail at this time. If he feels that they are fixed, as are customs, that is sufficient. A certain amount of obedience and conformity to customs and laws which are recognized as fundamental, though not understood, is of great value in guarding against the tendency to make pleasure the standard, and in preparation for forming and adhering to higher ideals of duty and right. . . .

* From *The Individual In The Making*, Chapter VII, "Period of Competitive Socialization and Regulation." By permission of and by arrangement with Houghton Mifflin Co., the authorized publishers, 1911.

[**Conformity and nature.**] — With a certain minimum of blind obedience and conformity to customs, the child needs much enlightening experience and teaching. He gets this first in coming in contact with nature's forces in the earlier stages of development, though too often parents intervene in order to shield him from bruises or burns and to save him trouble, and thus unintentionally they prevent his getting a full realization of the necessity of conforming to nature's laws.

Later he needs further experience with nature, such as may best be found on a farm, but may be gained in constructive work and in school gardening, as well as in sports or games. To get the full benefit of such exercises he must be permitted to make some mistakes and find out for himself the laws to which he must conform, if he is to succeed in doing what he wishes with the various kinds of materials that he uses. . . .

Everything that the person does in such self-directed work is in conformity to laws whose necessity the person himself perceives. He is conforming, not to the will of another which may change at any time, but to inevitable, unchanging laws, which he learns sooner or later it is useless to resist and foolish not to recognize. . . .

[**Need for direction.**] — Although there is some natural objection by children to set tasks whose immediate advantages are not appreciated, yet such work has real value. A child enjoys much more his periods of free self-direction that follow periods of required and directed activity. If left to his own resources all the time, he wearies of his plays and is perhaps miserable because he does not know what he wants to do. . . .

Such regulation of one's conduct in certain respects by authority[1] is useful all through life, and may best be established as a permanent habit of mind and will during this period. Consistent, self-respecting exercise of authority, with unvarying enforcement, easily inspires respect and leads to fixed habits.

OBEDIENCE*

Cécile Pilpel

[**Regularity.**] — The time to begin training is while the child is in the cradle. At this stage of utter dependence the method of getting the right sort of obedience is through regularity. Regularity in observing mealtime, bath time, sleeping time, playtime — all this means building up faith in you; and on faith in you depends obedience. The little baby, to be sure, does not know what time it is, but it does feel vaguely that its life is being attended to in some rhythmical way. If that rhythm is not disturbed, the child will gradually come to feel that there is some one on whom it can rely. Establish that feeling of confidence during infancy, and the growing child will follow your suggestions.[2]

[1] For example, the modification of plans or routine through reliance upon expert judgment in matters of health, business, etc. Ed.

* *Studies in Child Training*, Series I, No. I, Child Study Association of America 1925.

[2] Compare "Nursery Observations" p. 206.

[**Confidence.**] — How often, though, after carefully and regularly attending to all the baby's needs, we lose his confidence by foolish, thoughtless acts. How often do we see a mother slip slyly out of the room because she knows that the little child will cry if he sees her go. Instead of thus weakening the faith which the child has had in her and starting him on the road to disobedience, she must help the child at this early period to find interests outside of his mother's companionship.

[**Avoiding unnecessary disappointments.**]—Again, mothers think it necessary to tell little children exactly what will be done to-morrow and next week; and when for some perfectly good reason that program cannot be carried out, the child, who is too young to understand the reason for the change, is puzzled and his confidence in his mother is shaken. It is much better for the little child to take on the spur of the moment those pleasures which are outside routine. When the child grows older and can better understand reasons for postponement and change, there will be no likelihood of misunderstanding. Nor do we find it necessary to manufacture these disappointments for the good of children's souls, as some people seem to think. A rainstorm coming on the day set for an outdoor party will teach the child that there are circumstances the human being has to accept because it is not within his power to control them.

[**Relative values.**] — It is also important to remember that the child is constantly growing, that he has to develop new habits and drop old ones, and that the lasting habits have to be built up slowly and patiently. Cleanliness, for instance: Rules are often laid down, which, because they disregard the nature of the child, are bound to be broken. Then we call the child disobedient. The boy, for example, who is far more interested in working on his radio than in having clean hands will disobey by coming to the table unwashed; but why call such carelessness disobedience? Is it not better to have a child who can lose himself in his interest than one who can drop everything at a flash to attend to his toilet? Why work so hard for a habit that will come of itself if the environment is favorable? He will very soon not only wash but also manifest the keenest interest in his dress and general appearance when the time comes to impress the other sex. Quietly and firmly ask him to wash up, even if you have to do it every day for a while. Children can be made to realize that cleanliness means health and that from the aesthetic point of view, too, they owe that much, if not to themselves, at least to the others at the table.

[**Mutual respect.**] — Another important step in the right direction consists in getting and keeping the child's respect. We cannot get obedience where we are not respected, and we cannot attain respect if we do not show any. . . . Consider the disrespect we show to children by rudely breaking into their play, which is as serious to them as our work, or for that matter our play, is to us. Proper respect for a child does not at all mean that he should be allowed to indulge every whim, but it does mean that you take the trouble to find out what your child is doing, and that you give him a few moments to make a change from his interest to yours. The child who comes home from school eager to

get at his work or play is often met at the door and sent right off on an errand. The mother is so full of her own interest that she does not consider the boy's. Often he rebels — and why? Put yourself in his place; consider what it means to have your plans thwarted just as you are on the point of carrying them out. Wouldn't it be better, in such a situation, to ask pleasantly what the boy's plans are for the afternoon, and then put in a request for whatever you want done? Children are reasonable and respond to fair treatment. If we only used better judgment, we should not have half the problems of disobedience and consequent punishment.

[**From obedience to judgment and self-direction.**] — Where there is understanding, and where skill and tact are exercised, there is little danger of nonobservance of essential rules and regulations. The danger is of another kind. Implicit confidence may lead to overdependence on the older person's judgment and the parent must be on his guard not to use this dependence for imposing on the child his own aspirations. The child must always express *himself* primarily. He must learn by having an opportunity to profit by his own experiences as well as by the advice of his parents. We shall not offend in this direction if we but hold true to our keen desire to be of help to a growing personality rather than try to enrich our own. We can by virtue of the confidence reposed in us give counsel and in this way bring about that eminently desirable relationship between ourselves and our children, which, based on confidence and respect in childhood, makes all through life for love and mutual respect.

THE EFFECT OF MINDING ON THE MIND*

CHARLOTTE PERKINS GILMAN

[**Obedience as means of training.**] — Let us untangle the real necessity from the vast mass of hoary tradition, and see if obedience is really the best thing to teach a child, and if "by obedience" is the best way to teach a child. And let careful provision here be made for a senseless inference constantly made when this question is raised. Dare to criticize a system of training based on obedience, and you are instantly assumed to be advocating no system at all, no training, merely letting the child run wild and "have his own way." This is a most unfair assumption. Those who know no other way of modifying a child's behavior than through "making him mind" suppose that, if he were not made to mind, he must be utterly neglected. Child-training to their minds is to be accomplished only through child-ordering; and many think the training quite accomplished if only the subject is a model of obedience. Others, a little more open-minded, and who have perhaps read something on the subject, assume that, if you do not demand obedience of the child, it means that you must "explain" everything to him, "reason" with him from deed to deed; and this they wearily and rightly declare to be impossible. But neither of those assumptions is correct. One may question the efficacy of the Salisbury method

* From *Concerning Children*, Chapter II, Small, Maynard and Co. 1900.

without being thereby pledged to vegetarianism. One may criticize our school system, yet not mean that children should have no education.

[**Evils of obedience in education.**] — The rearing of children is the most important work, and it is here contended that, in this great educational process, obedience, as a main factor, has a bad effect on the growing mind. A child is a human creature. He should be reared with a view to his development and behavior as an adult, not solely with a view to his behavior as a child. He is temporarily a child, far more permanently a man; and it is the man we are training. The work of "parenthood" is not only to guard and nourish the young, but to develop the qualities needed in the mature. . . .

The "habit of obedience," forced in upon the impressible nature of a child, does not develop judgment and will, but does develop that fatal facility in following other people's judgment and other people's wills which tends to make us a helpless mob, mere sheep, instead of wise, free, strong individuals. The habit of submission to authority, the long, deeply impressed conviction that to "be good" is to "give up," that there is virtue in the act of surrender — this is one of the sources from which we continually replenish human weakness, and fill the world with an inert mass of mindless, will-less folk, pushed and pulled about by those whom they obey.

[**Revolt against authority.**] — Moreover, there is the opposite effect — the injurious reaction from obedience — almost as common and hurtful as its full achievement; namely, that fierce rebellious desire to do exactly the opposite of what one is told, which is no nearer to calm judgment than the other.

In obeying another will or in resisting another will, nothing is gained in wisdom. A human creature is a self-governing intelligence, and the rich years of childhood should be passed in the guarded and gradual exercise of those powers.

[**The child needs guidance and experience.**] — Now this will, no doubt, call up to the minds of many a picture of a selfish, domineering youngster, stormily ploughing through a number of experimental adventures, with a group of sacrificial parents and teachers prostrate before him. Again an unwarranted assumption. Consideration of others is one of the first laws of life, one of the first things a child should be taught; but consideration of others is not identical with obedience. Again, it will be imagined that the child is to be left laboriously to work out for himself the accumulated experiments of humanity, and deprived of the profits of all previous experience. By no means. On the contrary, it is the business of those who have the care of the very young to see to it that they do benefit by that previous experience far more fully than is now possible.

[**Failure in self-control.**] — Our system of obedience cuts the child off from precisely this advantage, and leaves him longing to do the forbidden things, generally doing them, too, when he gets away from his tutelage. The behavior of the released child, in its riotous reaction against authority as such, as shown glaringly in the action of the average college student, tells how much judgment and self-control have been developing behind the obedience. . . .

[**Obedience not an end.**] — All this is not saying that obedience is never useful in childhood. There are occasions when it is; and on such occasions, with a child otherwise intelligently trained, it will be forthcoming. We make a wide mistake in assuming that, unless a child is made to obey at every step, it will never obey. A grown person will obey under sharp instant pressure. . . . Much more will a child so respond where he has full reason to respect the judgment of the commander.

OBSTINACY AND OBEDIENCE*

Theodate L. Smith

[**Obedience to accepted law.**] — Too many rules and too strict discipline are not conducive to true obedience, if this is considered as an inward recognition of, and not mere outward conformity to, law and authority, regardless of motive. For this result a certain amount of freedom is necessary. A child, all the details of whose existence are under rule, has no opportunity for the development of self-control without which there can be no true obedience. The bad effects of too many and too strict rules vary somewhat in accordance with the natural disposition of the child. In timid children there is apt to develop a tendency to deceit and untruthfulness, especially where corporal punishment is the rule. In strong willed and courageous children the result is often obstinacy and rebellion and a conflict in which, though the child may be forced to submit, there is left a rankling sense of injustice. In really weak-willed and suggestible children, such a course of treatment seems in some cases to produce an actual arrest of will development, and the obedience itself is dependent upon the immediate influence of authority. On the other hand, a will which never encounters the check of law and authority in opposition to its own desires must also suffer loss, for probably a child's first lessons in conscious self-control are learned in the clash between its own instincts and desires and authority.

[**Obedience and self-control.**] — It is undoubtedly good pedagogy with young children to avoid conflict and divert attention from a forbidden object and so avoid impressing the thing forbidden upon the child's mind, but it is also possible to err in this direction quite as much as in the opposite one of too arbitrary an assertion of authority. A very young child cannot be given the reasons why certain things must and others must not be done. But he can readily learn to understand the approval or disapproval which results from conformity to, or defiance of, authority and is very quick to feel whether there is love as well as law back of the authority. A child who never disobeys because his will is never crossed has not yet begun to learn the lesson of self-control. A weak-willed child cannot be obedient in the higher sense of the word, because his outward conformity to rule is due not to self-control but to control by another. The strong-willed children, with whom, perhaps, in early years there

* From *Pedagogical Seminary*, 12: 27–54, March, 1905. (These are the conclusions based on a study of 113 cases of "obedient" children.)

are the sharpest conflicts, are those who under proper training become most self-controlled and are reported as the most obedient.

PUNISHMENT*

MARION M. MILLER

[**Primitive punishment vindictive.**] — In early times punishment meant "getting even" — it was the spirit of revenge that actuated the adult in meting out punishment. The culprit was to pay, in suffering or in privation, according to his crime. We see occasional vestiges of this same "tit-for-tat" sort of justice still in use: "Did Jack upset his sister's doll carriage? Then let sister destroy his house of blocks."

Gradually, our attitude has changed from the primitive, childish conception of punishment, to the corrective, as an aid to education. We find that, by a system of rigid discipline, by a curbing of the child's will, and by much redirection and repression of the child's natural instincts, the parent and the teacher hoped to stamp out the offending faults, and to develop right habits and orderly conduct. Fear of natural consequences, immediate or to come, were supposed to deter the child from wrong-doing. Herbert Spencer believed firmly that "the burnt child fears the fire," and that it was therefore desirable, except in extreme cases, that a child be made to suffer the natural consequences of his acts. Such punishment, however, must often fail to accomplish the desired result, since the young child does not always connect cause and effect. Frequently the natural result may be far more serious than the offense. Disobedience involving a trivial error in judgment may have serious consequences. Obviously it is the duty of parents to protect their children from the results of their own inexperience and impulsiveness.

[**Modern discipline preventive.**] — To-day the keynote of all scientific work, psychological as well as medical, is along the line of prevention, and it will be well for parents to be guided by this tendency. Discipline comes to mean, therefore, a study of causes of difficulties, helpful training, and positive guidance, with punishment as an occasional factor. We are coming to realize more and more clearly that if we find it necessary to punish we are using an emergency measure, but by no means a real or permanent cure. Parents who expect a set penalty to cure a fault are often discouraged because the "cure" is so transitory. "I have punished and punished, and it doesn't seem to make a bit of difference" — or "he knows what will happen if he does it again, but still he does not learn." They ignore the fact that the child may weigh the punishment against the satisfaction of his desires.

[**Consider a child's motive.**] — Let us be quite certain before we punish that the situation calls for punishment. So often in our indignation at the damage we lose sight of the worthy motive that resulted so disastrously. If, in his effort to help Daddy water the garden, Billy becomes dripping wet, we should

* From *Studies in Child Training*, Series I, No. II; Child Study Association of America. 1924

appreciate his desire to be of service and take the precaution next time to provide him with suitable clothes for the undertaking. Punishment, in this case, would certainly not dry Billy, but it would discourage his further impulse to help and it might even kindle a feeling of resentment against the person who had issued the edict of punishment, for children are quick to sense the injustice of punishment for unintentional offenses. . . .

[**Punishment as training.**] — There is no set formula for insuring the right response on the part of our children. We all know that many of the old-fashioned rules have proved to be ineffectual and faulty, if not in some instances actually dangerous. So long as the parent punishes only the specific action she is dealing with the result instead of with the cause which brought it about. It may be that Jack who upset the doll carriage had been waiting for his sister to admire his blocks and to play with him, and he was jealous of the attention that she was lavishing on the doll. Will destroying his game cure him of his disappointment or make him less jealous? In order to plan for a corrective procedure, we must trace the actual fault to its real source; then we must try to visualize the ultimate effect of whatever measures we employ.

It would be difficult to formulate any positive rules about when to punish, but there are a few general negative principles which it may be helpful to recall. Never punish a child in order to relieve your own feelings. So often a child's action becomes an offense merely because we are in an irritable mood. Or, accidentally, some valued article is shattered. Surely punishment will not restore it, nor will it guard against future accidents. The result may be, however, an increased nervousness, caused by fear of a repetition, and a general feeling of resentment.

How can we insure right behavior where the child is too young to understand the reasons for our demands?

[**Restraint in infancy.**] — Before the baby learns to understand the spoken word, there will be times when Mother finds it necessary to keep him from doing certain things. It is always better to find satisfactory substitutes than to negate. Where this fails because of the parent's lack of skill, denial may be impressed upon the child by firmness of attitude. Allowing oneself the recourse to slapping is dangerous — it too easily oversteps the bounds of serving purely as a shock to arrest undesirable reachings or touchings of a young child, and becomes a violation of the child's sense of selfhood. Then, too, there is the danger that slapping may too readily become merely a quick, impulsive outlet for the parent's irritation, with no remedial object at all. . . .

[**False standards.**] — Again we ourselves are often responsible for behavior on a child's part which will eventually bring him into conflict with established standards and subject him to consequent punishment. I have in mind the mother who, in her desire to see her child excel, actually impelled him to cheat in his studies because he felt that he could not otherwise come up to her expectations.

[**Cultivating ideals.**] — Can a small child be shown why he must play honestly? Suppose we punish him for cheating by excluding him — will this

teach him? The small child, having no sense of abstract right and wrong, is impelled to do that which brings the desired result, the pleasure of winning. Rather than punish him then, we might better show him that acquiring skill in the game is a surer way of finding pleasure, since it wins for him both the game itself and a wholesome relationship with his playfellows. But suppose then that he failed to acquire great skill and thereby the joy of victory at this game? He may still be shown that the winning through to this relationship with his playfellows is more valuable than the winning of the game — all this, of course, by methods and language which a young child can understand.

[Graded expectations.] — We are learning more and more accurately what can be reasonably expected of children at different ages. The six-year-old, however bright and willing, should not be expected to think and act like a ten-year-old. Careful analyses of the habits of children at various stages have been compiled. If James at six must be reminded almost daily to put away his toys at the appointed hour, we may check our impulse to punish when we realize that he cannot yet be expected to have developed the sense of responsibility which would induce him readily to give up a delightful game at a definite time. From his ten-year-old brother, however, we can reasonably expect such a sense of responsibility.

Many other examples might be mentioned, all of which bring us to the same conclusion: that a wiser control of courselves, and a clearer conception of the laws which govern childhood, will so guide us in the training of our children that we may look forward to reducing to a minimum the necessity of punishment.

THE PUNISHMENT OF CHILDREN*

Felix Adler

[Never punish in anger.] — In discussing the subject of punishment I shall content myself with suggesting a few simple rules and principles, and shall consider my object gained if I induce my hearers to enter upon a closer investigation of the delicate and manifold questions involved.

The first general rule to which I would refer is never to administer punishment in anger. We cannot trust ourselves to correct another while we are enraged. An angry man is always liable to overshoot the mark; we must wait until our angry feeling has had time to cool. Do I then advise that we administer punishment in cold blood? No, we ought to correct the faults of others with a certain moral warmth expressed in our words and manner, a warmth which is produced by our reprehension of the fault, not by the annoyance which it causes us. This, then, is the first rule: never punish in anger.

[Separate the child from his fault.] — The second rule is that in correcting a child we should be careful to distinguish between the child and its fault; we should not allow the shadow of the fault to darken the whole nature of the

* From three lectures given before the Society for Ethical Culture of New York, in February, 1886; reprinted from *Ethical Addresses* for April and May, 1898.

child. We should treat the fault as something accidental which can be removed. We are bound to show confidence in the transgressor. Our confidence may be disappointed a hundred times, but it must never be wholly destroyed, for it is the crutch on which the weak lean in their feeble efforts to walk. We must give the child to understand that we still have hope of its amendment; the slightest improvement should be welcomed with an expression of satisfaction.

[**Penalties, not words.**] — The third rule is not to lecture children. When punishment is necessary, let it come upon the child like the action of a natural law — calm, unswerving, inevitable. Do not attempt to give reasons or to argue with the child concerning the punishment you are about to inflict. If the child is in danger of thinking your punishment unjust, it may be expedient to explain the reasons of your action, but do so after the punishment has been inflicted. There are parents who are perpetually scolding their children. The fact that they scold so much is proof of their educational helplessness. They do not know what measures of discipline to apply, hence they scold. Often their scolding is due to momentary passion, and the child intuitively detects that this is so. . . . Our lectures on right and wrong are generally too abstract for the child's comprehension, and often do not touch its case at all. Moreover, the iteration of the same dingdong has the effect of blunting the child's apprehension. A stern rebuke is occasionally necessary and does good, but it should be short, clear, incisive. A moralizing talk with an older child sometimes does good. The parent should not, however, indulge in generalities, but, looking over the record of the child for the past weeks or months, should pick out the definite points in which it has transgressed, thus holding up a picture of the child's life to its own eyes to reinforce the memory of its faults and stimulate its conscience. In general it may be said that the less the parent talks about moral delinquencies the better. On this rule of parsimony in respect to words particular stress is to be laid.

[**Consistency.**] — The next rule is quite as important as the preceding ones. It is that of undeviating consistency. Were not the subject altogether too painful, it would be amusing to observe how weak mothers — and weak fathers, too — constantly eat their own words. . . .

We should be extremely careful in deciding what to demand of a child. Our demands should be determined by a scrupulous regard for the child's own good, but when the word has gone forth, especially in the case of young children, we should insist on unquestioning obedience. Our will must be recognized by the child as its law; it must not suspect that we are governed by passion or caprice.

[**Corporal punishment.**] — We must not base our opposition to corporal punishment merely on sentimental grounds. And there is no need for doing so, for there are sound principles on which the argument may be made to rest. Corporal punishment does not merely conflict with our tenderer sympathies; it thwarts and defeats the purpose of moral reformation. In the first place it brutalizes the child; secondly, in many cases it breaks the child's spirit, making it a moral coward; and thirdly, it tends to weaken the sense of shame, on which

the hope of moral improvement depends. Corporal punishment brutalizes the child. Its underlying thought is: You can be controlled only through your animal instincts, you can be moved only by an appeal to your bodily feelings; it is a practical denial of that higher nature which exists in every human being, and this is a degrading view of human character. A child which is accustomed to be treated like an animal is apt to behave like an animal. Thus corporal punishment instead of moralizing serves to demoralize the character.

In the next place corporal punishment often breaks the spirit of a child. Courage is one of the noblest of the manly virtues. We should train our children to bear unavoidable pain without flinching, but sensitive natures can only be slowly accustomed to endure suffering, and chastisement, when it is frequent and severe, results in making a sensitive child more and more cowardly, more and more afraid of the blows. In such cases it is the parents themselves, by their barbarous discipline, who stamp the ugly vice of cowardice upon their children.

Even more disastrous is the third effect of corporal punishment, that of blunting the sense of shame. Some children quail before a blow, but others, of a more obstinate disposition, assume an attitude of dogged indifference. They hold out the hand, they take the stinging blows, they utter no cry, they never wince; they will not let the teacher or father triumph over them to that extent; they walk off in stolid indifference. Now a blow is an invasion of personal liberty. Every one who receives a blow feels a natural impulse to resent it. But boys who are compelled by those in authority over them to submit often to such humiliation are liable to lose the finer feeling for what is humiliating. They become, as the popular phrase puts it, "hardened." Their sense of shame is deadened. But sensitiveness to shame is that quality of our nature on which, above all others, moral progress depends. . . . When a child finds itself frequently exposed to ignominy it becomes indifferent to ignominy, and thus the door is opened for the entrance of the worst vices. There is one excellence, indeed, which I perceive in corporal punishment: it is an excellent means of breeding criminals. Parents who inflict frequent corporal punishment, I make bold to say, are helping to prepare their children for a life of crime; they put them on a level with the brute, break their spirit, and weaken their sense of shame.

NORMAL AND ABNORMAL REPRESSION*

Adolf Meyer

[A new liberalism based on new fears.] — The present-day emancipation from a false authority of fear and dogma and from the self-satisfied, dogmatic, "I know it all best" attitude of the elder toward the young, borrows much of its fervor from a new fear, viz., the off-hand or unreasoning fear of repression of individual desire. We are led to take well-nigh for granted that the ideals of

* From an Address to the Convention of the Progressive Education Association at Baltimore, Maryland, April 7 and 8, 1922.

the older person cannot possibly be as safe and good a guide as the natural trend of the young in its unhampered state, and in this many are driven further because they fear there is always arbitrariness inherent in traditional repressions. To me our period looks like one of accelerated evolution, not of revolution, and one of the factors under concern is a new and more livable freedom, with maximal respect for the natural drives of man but also for accumulated wisdom of the race — a freedom demanding also reasonable responsibility, that which in civics means "freedom and solidarity." My special concern is a modest but none the less emphatic call for a thoughtful and sensible warning against wholesale dread of repression or control, provided we can find control by consensus, by understanding, and collaboration.

[**Abnormal repressions are mismanaged repressions.**] — Repression has been overadvertised as the source of terrible consequences. Repression is an essentially normal necessity and at the same time, like everything else, it may be turned into a chance for harm to society and a chance for harm to the individual. The fundamental difficulty is that, in certain individuals and under certain conditions, it is apt to lead to conflicts and sometimes to conflicts which are mismanaged. Fundamentally, then, we may deal with a problem of mismanaged conflicts and desires.

How did the concept of repression get such prominence? Most of us were probably brought up under a régime in which repression played an altogether excessive rôle. Then there came a decided let-up in the strictness and bitterendedness of control, until finally a wholesome common-sense and good-will attitude prevails among parents and teachers. . . .

AUTHORITY AND INDIVIDUALITY*

Ernest R. Groves

[**Youth and age.**] — The problem of adjusting authority and individuality must not be conceived of as merely the task of getting the young to conform to social regulations. The adult himself is a part of the problem. If youth furnishes one element, age furnishes the other. If one left to itself tends to the abandonment of prudence and the blind pursuance of egoistic activities, the other if too dominant forbids variation and progress. The struggle between the two parties is, therefore, to an extent, inevitable. Each has something to contribute. Neither can be trusted to have full control. This adjustment also has to be made in the case of each developing individuality as it comes in contact with social coercions under the control for the most part of parents, teachers and relatives. . . .

[**Social pressure to conformity.**] — The modern adult runs the risk of using the same unwholesome process in his eagerness to bring the child in harmony with social convention. What he often demands is a docility which is contrary

* From *Personality and Social Adjustment*, Chapter XVII, Longmans, Green and Co. (1923). 1924.

to the necessary self-expression of the developing child. He can use punishment of a physical sort, often by so doing undermining the courage and sympathy of the child. On the other hand the appeal may be to the child's wish to be in good standing with his associates. He may be driven by the fear of public ridicule to a slavish submission that in the end will prove disappointing to the parent since it will represent merely the results of outside pressure. Even if the parent makes no special effort to dominate the child, his very presence will, in cases where affection is normally strong, tend to make the child imitate him to a considerable extent. The child's attention is necessarily fixed upon the persons around him and especially father and mother. He soon discovers the advantage of having favorable reactions from his parents and gradually this becomes a motive of his conduct. In the child that is particularly sensitive this dominance of parental authority is particularly great.

[**Repression and rebellion.**] — The relationship involves suggestibility. The child naturally is apt to respond to indirect influences that stimulate the tendencies of his personality, thus leading to reactions which he supposes to be entirely his own. With reference to suggestibility we find two extreme reactions. One child becomes the victim of suggestion to such an extent that he never develops, but carries through life childish tendencies and is easily swayed by his contact with dominant persons or even as a result of different forms of suggestion common to modern life such as skillful salesmanship or clever advertising. The other type of child develops into a rebel. He seeks every opportunity to react adversely. Sometimes this childhood habit extends into later life, becoming strengthened in the process. The result is an unsocial or even anti-social individual who at the least will be stubborn-minded and constantly antagonistic to social conventions. . . .

[**Responsibility and dependence.**] — Parents who respond to the child's earliest demands for independence are laying the foundation for the youth's normal assumption of personal responsibility. Accustomed to coming in contact with the operation of physical laws without the intervention of a protecting personality, he is the more ready to use his own judgment in regard to his conduct. Those parents who thoughtlessly travel the road of short-sighted indulgence to the whims of their children or themselves may find when their boys and girls reach adolescence, or even the years of maturity, that at some snag by the wayside a child has been tripped and held up so that he can perhaps never attain full independence. If the parent helped the small child whenever he saw the little one encountering difficulties, not waiting for the child's call for help, and not having from the first cultivated the art of standing back until the baby had done his utmost unaided, the parent was training the child to be dependent. The dependent adult is recognized by all to be a person of mediocre possibilities, but it is not so commonly understood that the cause of the dependency of the normally endowed adult must be sought in the training of his earliest years.

[**Group authority.**] — As soon as the child reaches school age a new source of authority arises, which may conflict with that of the home, where again

there may from the beginning have been a split in authority between the parents, or a division of contradictory authority between parents and grandparents or other relatives. The adult is apt to conceive of the boy's or girl's problem in too simple terms. It is not merely a question with the child whether he shall be submissive to authority, but rather what authority he shall accept.

[**Choice of authorities.**] — The boy, for instance, finds himself commanded by his parents who may or may not have the same point of view, his other relatives who are almost certain not to be fully sympathetic to the parents' program, the school authorities who necessarily represent a different purpose, officials of the law, the church, and above all the society maintained by his playmates. This last organization, although simple in character, is particularly effective in working out its authority. The boy may willingly accept the control of the gang since this is closer to his own interests and understanding, even though by so doing he finds himself constantly in trouble with his parents, his relatives, his teachers, the code of the church, and even the police. In such a medley of authority it is not strange that the boy is often puzzled and clings to the organization he best understands and most enjoys. . . .

[**Decision to replace authority and impulse.**] — We are not able to lean upon authority. We are forced for the most part to decide for ourselves what is right. We of course have legislative acts and well-established principles to guide us. But most of our conduct falls outside the area regulated by legislation. Our having moral principles does not free us from the difficult task of discovering their application to concrete problems of conduct. We realize from experience how hard it is to know what is socially good and so we have to put our wits to work when we find ourselves face to face with any problem of conduct. We make our decisions with considerable doubt because we know that we have made mistakes in the past and we wonder whether we may not be in error again. Thus education begins with the individual and ends with him. It uses the resources of a personality born into the world with an equipment unlike that of any other and seeks not to destroy this individuality but to fulfill it. Education cannot succeed when it standardizes its product and attempts to mould individuality into one form. It finds variation and it must develop variation.

II. TRUTH AND FALSEHOOD

Several studies have been made of children's lies, and these have been supplemented by studies of both normal and diseased behavior of adults who had had difficulties with untruth during childhood. Certain significant facts stand out as of special importance to those of us who take seriously the frequent recourse to lies on the part of children.

We learn first that truthfulness is itself a product of growth and experience, not a native disposition. It is something to be acquired by the child, as language is acquired; and to be appreciated by him only after long experience in learning values, as accuracy and punctuality and order come to be appreciated.

We learn next that what an adult calls *lies*, seeing the disharmony between the child's acts or statements and actual facts, may be many different kinds of things from the point of view of the child; that is to say, a lie is not always a lie in the motives or purposes of the child. This we can perhaps best understand from the more obvious situations in which the child's failure to perceive correctly or the deficiencies of his vocabulary lead him to say things that simply are not so. We are indeed often amused by these lapses and many adults realize that the need is not for reproof but for aid in understanding and expression. It is not a lie to say that the sky winks in a storm, or that it leaks; it is metaphor and will be replaced with more accurate description. Again, it is not difficult to see that a child often confuses dreams and memories and fancies with concrete reality, and that he needs help for learning to distinguish between these different but related mental states. Sooner or later, however, his wishes tend to color too deeply his words and acts; he learns that he can get what he wants, or avoid the disagreeable, by using one set of words or acts rather than another, without much regard to whether it agrees with reality. We say then that he "misrepresents" or that he "deceives," but it often happens that he does so without prejudice — that is, his intentions are to him honorable and legitimate enough, and he finds the means effective. He has still to learn that such direct action is disapproved by his elders, and why.

The child in the course of his development finds not only a great variety of temptations to deceive, to prevaricate, to dissemble, to misrepresent, but also a great many ways of saving his conscience while

yielding to temptation. If we are to be of any help to him it will be necessary to understand the motives of the different kinds of untruths, motives that are very often quite hidden from the child's own consciousness. Beyond the early stages of adjustment to the outside world, during which the child must learn to see clearly and to express himself adequately, one of the most important needs is to meet the temptation to self-deception, or to rationalize, which is so common. To find reasons or explanations for fulfilling one's wishes is the beginning of self-deception; the child must be helped to face himself candidly, to be true to himself, as the first step toward being truthful with others.

The demand for an understanding of the child's motives and difficulties does not imply that we are to treat lying lightly as something that will be automatically outgrown like playing with dolls or marbles: it will be outgrown just to the extent that the child is understood and helped. He has to learn to conform to adult standards as rapidly as he can come to imitate them and to understand them; but this is not the same as being prevented from lying through the imminence of punishment. The problem of bringing veracity to young people's understanding on the intellectual level is dealt with in a model lesson by Professor Felix Adler. The other selections should help in getting the child's point of view without detracting from the highest ideals of truthfulness.

THE CHILD AND TRUTH-TELLING*

Sidonie Matsner Gruenberg

[**What we expect of the child.**] — Civilized life, or, for that matter, any kind of community life, is possible only if people are "dependable" — that is, if truth is in them. So important is this that most adults, especially parents, are likely to be both grieved and shocked on the appearance of untruth in the speech or conduct of a child. In our eagerness to promote an understanding and love of truth and to block the way against lying, we often defeat our own purpose through misdirected zeal.

Knowledge and love of truth, both fundamental to adult truthfulness, are, after all, adult achievements, to be attained only after many years of experience and striving. It is therefore futile to expect of the young child an abstract conception of truth, even though we demand that he act in accordance with our adult standards.

[**Discrimination lacking.**] — While the child is learning to talk, and for some time thereafter, there is not sufficient development to distinguish between

* From *Federation for Child Study Bulletin*, "Truth and Falsehood," October, 1924. Child Study Association of America, Inc.

the creations of fancy, memories, dreams, on the one hand, and actual occurrences on the other. He is unable to differentiate the fleeting images aroused by his wishes from actual situations. Under these circumstances it is worse than useless to reprove the child for saying that he saw a flower fly off the bush like a butterfly, or that the cat spoke to him. He may have misinterpreted what he saw — or his wish may have been father to the thought. What he says is certainly not true, but he is not "lying," for everything he tells you has a proper place in his own mind and he is not concerned beyond that. Discrediting his inventions will not cure him of lying, since he has not realized his "lie" — but our ill-considered reproof may discourage his efforts at putting into words what does come into his mind, and destroy his confidence in our sympathy and understanding.

We cannot, of course, allow the child to go on forever confusing the imagined with the real. But we can help him bridge this period by showing him patiently that some thoughts do correspond to the tangible world outside, whereas others exist only within the mind. By playing with him in his make-believe games, we may gradually lead him to distinguish between one class of experience and the other.

[**Facing one's own motives.**] — Very often children invent excuses or justifications for their acts, or give reasons which we feel are not altogether genuine. In fact, the more numerous the reasons are which a child gives in urging the granting of his desires the more likely it is that his "real" reason is being withheld. A boy of nine told his mother that he was instructed by the teacher of his class to bring a gift of a book to a little girl classmate confined at home with a broken leg. It was comparatively easy to show the boy that his teacher had probably done no more than suggest such a possibility, but that, in his eagerness to take a book to the little girl and in his fear of possible opposition, he had allowed his desires to influence his statement.

We must show children all along the line that to be honest with one's self requires scrupulous investigation of one's own motives.

[**Misrepresenting.**] — Another type of problem presents itself when the child has learned to get what he wants by word or act which an adult may classify as "untrue." The child who, after being put to bed, calls for water because in this way he gets his mother's company, is not conscious of the fact that he is lying. Malingering of various kinds and degrees has been observed in children of all ages, as well as in fully grown men and women. In such cases the child does not begin with a conscious desire to deceive but simply uses the word or gesture which he has found effective. To the child it is not a question of truth or falsehood, of right or wrong; it is only a question of getting what he wants — and he learns that some methods work. Or it may be a question of avoiding something disagreeable — and again he learns that certain methods bring the desired result.

[**Bragging.**] — It is not always a seeking of some material satisfaction which induces the child to lie. Just to cause a sensation he may brag of having done something which he really did not do, or tell a story that will astonish or mystify.

Does he not see other people draw attention, even admiration, by the telling of wonderful tales? Then what is more tempting than to tell a good one himself? Here again there is in the child's mind no question of truth or falsehood — there is only the wish to produce an effect. His creativeness is challenged and he does his best.

If we understand that at one time the child lies because he is too timid and too weak, whereas at another time he lies in order to show off, we will realize that we cannot deal with both kinds of "lies" in the same way.

We can encourage him to make up a story as a story, and have it receive due recognition on its merits; or we can help him find legitimate ways of expressing himself and of receiving the favorable attention which, at this period, the child really needs. Thus we may remove the temptation to improvise, and lead him to value both truthfulness and invention for their distinct purposes.

In addition to maintaining, in word and deed, our own standards of adherence to truth, we must help the child by reducing temptations and by teaching him to discriminate.

[**Avoiding punishment.**] — Among the most common lies of childhood are those designed to save one from punishment. It is only a rather stupid child who will not make the important discovery that some words or statements will bring disapproval or worse. Closely connected with the child's denial of guilt when he is accused of some wrong-doing is a very widespread but usually unconscious rule of telling lies to enemies and reserving the truth for friends. In dealing with the child therefore we must somehow make him feel that his parents or teachers are indeed his friends and that there is more to be gained if he deals with them truthfully and honestly than if he deceives them.

Certainly the lies that are prompted by fear of punishment will not be eradicated by more punishment or by giving the child more reason to fear. It is necessary to help him realize that lying is an unworthy and weak evasion; it is necessary to help him feel that it is in every way better and more satisfactory to face the consequences of wrongdoing. A challenge to self-respect will be more constructive than an appeal to fear.

[**Challenge to untruthfulness.**] — Again and again we force children into speaking untruthfully by our approach to a situation or by our tone of voice. We all know how a child in school can be made to give the teacher an answer which is not exactly what the child thinks but rather what the child thinks the teacher wants to hear. In the same way, outside of school, we frighten the child or challenge him into making false statements when we might, with proper handling, have him speak confidingly and truthfully.

[**The lie heroic.**] — Then, too, there are times when a child will deliberately lie for what seems to him a noble purpose. When boys have gotten into mischief it often happens that one of them will lie to protect his companions. Many a child thus takes upon himself all manner of punishment rather than expose his friend. A sensitive girl will tell a "white lie" to save the feelings of a loved person. What she needs is not a sweeping condemnation of her departure

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from accuracy in statement, but help and guidance in acquiring judgment of relative values.[1]

[**Prevarication.**] — It is on the approach to adolescence that children most commonly resort to the two kinds of lies just described, and also to prevarication, or the scrupulous qualification of statements so that they will be literally true, yet leave enough unsaid to produce the effect of an untruth. Such practices indicate that the child has already learned to recognize truth and its importance in life, but has not yet learned fundamental principles of honesty. His "conscience" makes him choose between a higher and a lesser "right," when he lies to shield another; it makes him pick his words carefully when he tells a half truth, for he would much prefer to avoid lying. The great help he needs now is that which will make him realize that it is better to face out a disagreeable situation than to run away from it; that honesty is indeed a sound policy (although we may revolt at identifying moral values with considerations of advantage suggested by "policy").

[**Growth in truthfulness.**] — In general, then, if we watch the child from the earliest days, we find that the idea of truth is something which is acquired very slowly and gradually, from a variety of experiences with the concrete world and with the processes that go on in consciousness.

All who have to do with children realize that truthfulness is attained but slowly. We must not condemn the child for every false statement he makes, but rather use each occasion as an opportunity for enlarging his understanding and increasing his appreciation of truth. Here, as in so many other kinds of situations, we should *condemn the wrong*, not the child; for a large factor in his moral development is the confidence which we make him feel in his own ability to do what is right, to overcome temptations, to outgrow childish faults. We must look for the causes instead of stressing results, and we often find that we can remove the temptations to resort to falsehood. Frankly recognizing the difficulties and obstacles to be met, and expecting no miracle of sudden reformation or conversion, we must set the ideal of truthfulness before the child and before ourselves as something toward which to strive; then we may hope to be of help as counsellors and guides.

SOME MORAL CHARACTERISTICS*

W. B. Drummond

[**Untruths of adults.**] — If some one would publish a study of the untruths which adults tell to children, I think it would help us to be more charitable in our estimate of children's veracity. Apart from the deliberate untruths which are often told for the purpose of checking the child's inconvenient curiosity, think of the careless and inaccurate replies which are thought good enough responses to his desire for knowledge. Think, also, of the banter in which

[1] See also "Idealism of the gang," p. 139.

* From *An Introduction to Child Study*, Chapter XVI. London — Edward Arnold & Co. New York — Longmans, Green & Co. 1907. (By permission.)

many adults indulge, finding pleasure in the ready credulity with which children swallow all sorts of marvellous fabrications. Careless guardians, again, often emphasize their orders with all sorts of promises and threats which they never intend, and which the child quickly discovers they never intend to fulfill. In these and other ways grown-up people who, perhaps, regard themselves as perfectly truthful, not infrequently, I fear, are responsible for undermining children's respect for truth.

[**Force of example.**] — But if a child has a fair chance, that is, if he is brought up among habitually truth-speaking people, there are many influences which will favour the natural respect for truth. Of these influences the force of example is the most potent. Next to this I should place the simple fact of learning to speak, which necessitates incessant practice in associating words with things, and statements with facts. To a child, a name is much more than a mere arbitrary symbol for a thing. Bread *is* bread, and no child can understand how on earth the French can remember to call bread *pain*, or a horse *cheval*. "Surely," said a little girl, "if they are in a hurry, they sometimes forget, and call things by their real names."

[**A question of habit.**] — Truth-speaking, then, may become a simple matter-of-course, and I agree with Sully[1] that to a habitually veracious child a lie may appear something awful. If such a child should ever, in circumstances howsoever exceptional, actually tell an untruth, he will feel "a shock, a horror, a giddy and aching sense of having violated law — law not wholly imposed by the mother's command, but rooted in the very habits of social life."

[**Secretiveness and slyness.**] — Of the factors which may plant the seeds of untruthfulness, one of the most important is the secretiveness which is a normal childish propensity. All children love to be entrusted with secrets, and most love to invent little secrets of their own. I suppose it gives a child a delicious sense of superiority to know something which grown-up people do not know. Sometimes a tendency to manufacture secrets becomes almost a mania, so that a child may be unable to answer a question without a preliminary laugh, and a pursing of the lips, or an aggravating, "Ah, ha, I know." Matters become more serious when a child takes to doing things on the sly. For example, a child may wait till he is unobserved before helping himself to a biscuit, which he knows he might have had for the asking, or sneak quietly out of the house in case he may be asked where he is going, although he has no intention of going anywhere forbidden. Such slyness, however, though a disagreeable and dangerous trait, scarcely amounts to dissimulation. More definitely untruthful are the little acted lies by which quite young children often try to deceive, as when a little mite who had been refused more bread-and-butter until her crust had been eaten, seized a suitable opportunity to throw the disliked crust under the table. Another child, having spilt some cocoa, as she thought unobserved, quietly slipped the bread plate over the offensive stain.

[**Make-believe play.**] — Children's make-believe play, again, involves much imaginative talk, which has no accord with reality. Such playful use of words

[1] Sully, James, *Studies of Childhood*, p. 265.

may be comparatively free from danger, but it does sometimes require a little argument to persuade John that he must own up to the mischief which he did when he was not John, but Jack the Giant Killer, or the Ogre. The child's love of exaggeration also, and of creating an impression, will often lead to statements which, if not deliberately false, are perilously near it. Indeed, no less a man than Darwin[1] tells us in his *Autobiography*, that in his boyhood he was much given to inventing deliberate falsehoods for the sake of causing excitement. For example, he told a companion that he could produce variously coloured polyanthuses and primroses by watering them with certain coloured fluids, "which was, of course, a monstrous fable, and had never been tried by me."

[**Vivid imagination.**] — The vividness of children's imaginative processes frequently leads to the presentation of the creatures of fancy in the garb of fact. A lady visiting a board-school was told by a teacher that one of her pupils had been turned out of the house by his mother the evening before, and had been out all night. The teacher was very indignant, and said the parents should be punished. The child, on being questioned, declared tearfully that his mother put him out of the house because there was no room, and that he had slept all night in a stable. The lady, after some conversation, soon came to the conclusion that the events detailed were quite imaginary, and she began talking to the child about other things. Upon asking him if he had learned any new hymns recently, he said he knew "Once in Royal David's City," and the source of his imaginings was at once revealed. In such cases as this it is obvious that the treatment needed is some careful exercise of the perceptive faculties rather than an appeal to conscience.

[**Influence of companions and loyalties.**] — Among the school children studied by Stanley Hall, high ideals of truthfulness were prevalent. As a rule the children displayed a healthy tendency to look at moral situations as wholes. While a few regarded every deviation from literal truthfulness as alike heinous, the majority were found to admire "burly boys who by false confessions take upon themselves the penalties for the sins of weaker playmates." Many of the children thought it would not be wrong to tell a lie if a parent wished them to do so. "Truth for one's friends, and lies for one's enemies, is a practical, though not distinctly conscious rule widely current with children." This, perhaps, exemplifies the fact that school children tend to take their moral ideas from their fellows rather than from their parents or teacher.

[**Hostility to authorities.**] — In taking or giving prompts, peeping into their books, and copying from one another, children feel that they are acting in concert against the teacher, whose business it is to catch them if he can. Such dishonesty seems to the offenders much more justifiable if the teacher is disliked. An excessive use of punishment, combined with lax supervision, is frequently responsible for dishonesty of this kind. Indeed, a great many lies, both at home and at school, come on the scene in connexion with discipline. A timid child, suddenly confronted by authority harshly demanding an explana-

[1] *Life of Charles Darwin*, p. 6.

tion, is put upon his defensive, and feels challenged to use his wits to get out of the scrape.

[**Temptation in games.**] — Another form of cheating, less deliberate, perhaps, in character, may arise in connexion with games. We are so accustomed at the present day to hear play lauded as the source of all the virtues, that we are apt to forget that most games have their own temptations to cheating. Of the lies which may be prompted by the excitement of games, Stanley Hall says, "they are so soon forgotten when the excitement is over that they rarely rankle, and are hard to get at, but they make boys unscrupulous and grasping."

A study of children's lies, then, seems to bear out the general contention that the moral side of a child's nature is unformed, and not to be judged by adult standards. Amongst the various innate propensities are some which are favourable and some which are unfavourable to morality. It is for education so to train and coördinate the various faculties that not only may good habits be formed, but the higher motives may become the regulative principles of conduct.

AN INDUCTIVE LESSON ON VERACITY*

FELIX ADLER

[**The need for a general rule.**] — The general commandment against lying leaves in the pupil's mind a multitude of doubts unsolved. Shall I always tell the truth, that is to say, the whole truth, as I know it, and to everybody? Is it never right to withhold the truth, or even to say what is the contrary of true, as, *e.g.*, to the sick or insane. Such questions as these are constantly being asked. What is needed is a rule of veracity which shall leave the general principle of truth-speaking unshaken, and shall yet cover all these exceptional cases. How to arrive at such a rule?

[**Analysis with children.**] — I should go about it in the following manner and the method here described is the one which is intended to be followed throughout the entire course of lessons on duty. I should begin by presenting a concrete case. A certain child had broken a precious vase. When asked whether it had done so, it answered, "No." How do you characterize such a statement? As a falsehood. The active participation of the pupils in the discussion is essential. Properly questioned, they will join in it heart and soul. There must be constant give and take between teacher and class. Upon the fulfillment of this condition the value of this sort of teaching entirely depends. The teacher then proceeds to analyze the instance above given, or any other that he may select from those which the pupils offer him. The child says *no* when it should have said *yes*, or a person says *black* when he should have said *white*. In what does the falsehood of such statements consist? In the circumstance that the words spoken do not correspond to the facts. Shall we then formulate the rule of veracity as follows: Make thy words correspond to

* From *The Moral Instruction of Children*, Chapter XI, "The Duty of Acquiring Knowledge." D. Appleton & Co., New York (1892). 1920.

the facts; and shall we infer that any one whose words do not correspond to the facts is a liar? But clearly this is not so.

[**Consideration of negative instances.**]—The class is asked to give instances tending to prove the insufficiency of the proposed formula. Before the days of Copernicus it was generally asserted that the sun revolves around the earth. Should we be justified in setting down the many excellent persons who made such statements as liars? Yet their words did not correspond to the facts. Very true; but they did not intend to deviate from the facts — they did not know better. Shall we then change the formula so as to read: Intend that thy words shall conform to the facts? But the phrase "correspond to the facts" needs to be made more explicit.

[**Agreement with facts not sufficient.**] — Cases occur in which a statement does correspond to the facts, or, at least, seems to do so, and yet a contemptible falsehood is implied. The instance of the truant boy is in point, who entered the school building five minutes before the close of the exercises, and on being asked at home whether he had been at school promptly answered, "yes"; and so he had been for five minutes. But in this case the boy suppressed a part of the facts and, moreover, the essential part, namely that he been absent from school for five hours and fifty-five minutes. Cases of mental reservation and the like fall under the same condemnation. The person who took an oath in court, using the words, "As truly as I stand on this stone," but who had previously filled his shoes with earth, suppressed the essential facts, *viz.*, that he had filled his shoes with earth.

[**The effects of words.**] — Shall we then formulate the rule in this wise: Intend to make thy words correspond to the essential facts? But even this will not entirely satisfy. For there are cases, surely, in which we deliberately frame our words in such a way that they shall not correspond to the essential facts; for instance, if we should meet a murderer who should ask us in which direction his intended victim had fled, or in the case of an insane person intent on suicide, or of the sick in extreme danger, whom the communication of bad news would kill. How can we justify such a procedure? We can justify it on the ground that language as a means of communication is intended to further the rational purposes of human life, and not conversely are the rational purposes of life to be sacrificed to any merely formal principle of truth-telling. A person who, like the murderer, is about to use the fact conveyed to him by my words as a weapon with which to kill a fellow being has no right to be put in possession of the fact. An insane person, who cannot use the truthful communications of others except for irrational ends, is also outside the pale of those to whom such tools can properly be intrusted. And so are the sick, when so enfeebled that the shock of grief would destroy them. For the rational use of grief is to provoke in us a moral reaction, to rouse in us the strength to bear our heavy burdens, and, in bearing, to learn invaluable moral lessons. But those who are physically too weak to rally from the first shock of grief are unable to secure this result, and they must therefore be classed, for the time being, as persons not in a condition to make rational use of the facts of life. It is not

from pain and suffering that we are permitted to shield them. Pain and suffering we must be willing both to endure and also to inflict upon those whom we love best, if necessary. Reason can and should triumph over pain. But when the reasoning faculty is impaired, or when the body is too weak to respond to the call of reason, the obligation of truth-*telling* ceases. I am not unaware that this is a dangerous doctrine to teach.

[**Rational purposes of acts.**] — I should always take the greatest pains to impress upon my pupils that the irrational condition, which alone justifies the withholding of the truth, must be so obvious that there can be no mistake about it, as in the case of the murderer who, with knife in hand, pursues his victim, or of the insane, or of the sick, in regard to whom the physician positively declares that the shock of bad news would endanger life. But I do think that we are bound to face these exceptional cases, and to discuss them with our pupils. For the latter know as well as we that in certain exceptional situations the best men do not tell the truth, that in such situations no one tells the truth, except he be a moral fanatic. And unless these exceptional cases are clearly marked off and explained and justified, the general authority of truth will be shaken, or at least the obligation of veracity will become very much confused in the pupil's mind.

[**Inward truth and outward form.**] — In my opinion, the confusion which does exist on this subject is largely due to a failure to distinguish between inward truthfulness and truthfulness as reflected in speech. The law of inward truthfulness tolerates no exceptions. We should always, and as far as possible, be absolutely truthful, in our thinking, in our estimates, in our judgments. But language is a mere vehicle for the communication of thoughts and facts to others, and in communicating thoughts and facts we *are* bound to consider in how far others are fit to receive them. Shall we then formulate the rule of veracity thus: Intend to communicate the essential facts to those who are capable of making a rational use of them. I think that some such formula as this might answer.

[**Inductive teaching.**] — I am not disposed to stickle for this particular phraseology. But the formula as stated illustrates my thought, and also the method by which the formulas which we shall have to teach in the grammar course are to be reached. It is the inductive method. First a concrete case is presented, and a rule of conduct is hypothetically suggested, which fits this particular case. Then other cases are adduced. It is discovered that the rule as it stands thus far does not fit them. It must therefore be modified, expanded. Then, in succession, other and more complex cases, to which the rule may possibly apply are brought forward, until every case we can think of has been examined; and when the rule is brought into such shape that it fits them all, we have a genuine moral maxim, a safe rule for practical guidance, and the principle involved in the rule is one of those secondary principles in respect to which men of every sect and school can agree. It needs hardly to be pointed out how much a casuistical discussion of this sort tends to stimulate interest in moral problems, and to quicken the moral judgment. I can say, from an

experience of over a dozen years, that pupils between twelve and fifteen years of age are immensely interested in such discussions, and are capable of making the subtlest distinctions. Indeed, the directness with which they pronounce their verdict on fine questions of right and wrong often has in it something almost startling to older persons, whose contact with the world has reconciled them to a somewhat less exacting standard.

III. CURIOSITY

No trait of human nature shows more strikingly than does curiosity the dual nature of our impulses. If it is true, as the deprecatory proverb has it, that curiosity killed the cat, it is also true that curiosity lengthened human life. If Paul Pry and Peeping Tom represent unlovely embodiments of inquisitiveness and if the "news" of the day is but glorified village gossip, Galileo and Pasteur are embodiments of the same basic trend and our laboratories, libraries, and research institutions are living monuments to the universal reaching after the unknown.

Most parents who have been irritated by the questions of children would probably concede that curiosity is natural and that the questions are legitimate enough. Our irritations are apt to arise from our own inability to answer the questions satisfactorily — to ourselves. It hurts our self-esteem to place ourselves on the child's level and to say frankly, as he does by asking, "I don't know." We are tempted then either to evade his question by giving him a fraudulent or specious answer, or to silence him more directly. Too often we say, in effect, that cats destroy mice, for example, "because it is natural." Neither method is calculated to cultivate in the child a progressive use of his curiosity with the development of judgment and imagination. On the contrary, both reactions repress the curiosity or divert it into underground channels.

We are here urged to consider the value of curiosity as a dynamic force which is essential to the highest spiritual development, whether in the direction of scientific research or of artistic experimentation, whether in the form of exploration or of religious meditation. It is a part of adventure and lends zest to every new experience. At the same time we need to recognize the child's complexity and the multiplicity of his motives. The question, for example, is a typical manifestation of curiosity, but questioning may mean something quite other under some circumstances. In a similar way, a child may dismember an insect out of sheer curiosity, as he would a toy engine; but the act may in other cases mean merely the satisfaction that comes from manipulation, while in still other cases it may contain a decided streak of cruelty. The child, we say, desires to assert himself. He may assert himself by a string of questions, which hold the continuous attention of his inter-

locutor, where he is indifferent to any answers. He may assert himself by pulling the cat's tail, not to find out how pussy behaves, but to feel sure that he can *make* pussy behave. Thorndike contrasts the satisfaction a child gets from hearing the sound of the horn, and the satisfaction he gets from blowing the horn — that is, making the horn sound.

Lee tells us in his inimitable manner that much of the mischief into which children find their way is but a form of exploration or social experimentation. Stealing apples from neighbors, when that was still possible, fell into the same class of activity as teasing or pulling a girl's hair. These are experiments in the behavior of human beings! The child needs to learn a great deal at first hand.

Curiosity needs guidance as well as encouragement, but it happens very often that the child will enter upon paths that are totally strange to his elders, or that are known to them only enough to arouse fears. This is well shown by common attitudes toward the child's attempts to investigate into the peculiarities of his own body, into sex, and into the mysteries of religion. There is indicated a very pressing need for the cultivation of the open mind in adults as a condition for tolerating and encouraging the curiosities of childhood and youth.[1]

THE WONDERING CHILD*

SIDONIE MATSNER GRUENBERG

[A nuisance as well as a precious gift.] — Curiosity has been called the mother of all knowledge and the nuisance of all mothers. No doubt there is some truth in both characterizations, although much of our knowledge comes to us quite uninvited and many mothers do not find the perpetual queries of their children at all annoying.

The normal child begins to ask questions in the second year of his life, usually, and how long he will keep it up depends to a large degree on outside circumstances. It is quite possible to make him stop very soon, by making sure that the questions never bring any satisfying results. It is also possible to make him continue the practice for many years, by making sure that the asking of a question always brings an interesting or satisfying result. The great explorers and discoverers were the boys and girls who retained the habit of asking questions, and at the same time acquired some skill in getting their questions answered.

[Questions not always from curiosity.] — We must not suppose, however, that all questions are worth while, or that all kinds of questions are equally

[1]See also "Play as a Preparation for Life Work," p. 78, and "Curiosity About Nature," p. 160.

* From *Sons and Daughters*, pp. 91–95. Henry Holt and Company. 1916.

worth encouraging. On the contrary, it is very easy for the little boy or the little girl to get the habit of asking questions that should be promptly and decidedly discouraged.

Little Henry missed his father after two days of absence, and asked his mother, "Where is papa?" The mother answered that he had to go to Chicago. "Why did he have to go to Chicago?" asked Henry. This question was the natural response of the child to a new intellectual situation; it was the first time that he had ever heard of anyone being obliged to do such a thing. The mother then answered, "He had to go on some business." But Henry still pursued her: "Why did he have to go on some business?" By this time the child had lost interest in the mysteries of Chicago and in his father's absence, and was prepared to meet each statement with a "Why?"

[**Reaching out for attention.**] — Strings of questions of this kind usually indicate not a live curiosity on the successive problems suggested by the answers, but a mechanical habit of saying the thing that will bring some sort of response — they are the precursors of what later in life becomes the wasteful and stupid habit of "making conversation." While recognizing fully the child's right to have all sincere questions answered, we must also resist the tendency to encourage empty talk masquerading as curiosity. These questions certainly have the same form as those that are actuated by a genuine desire for knowledge or for understanding, and we must be constantly on our guard against being deceived by the form. This does not mean that the child deliberately seeks to deceive us by making his conversation take the form of questions. Without meaning to deceive us, however, the child soon learns what kind of talk will keep the ball rolling — if we let him.

[**Need for candor.**] — The questions that spring from curiosity are of two main kinds, one pertaining entirely to facts, the other seeking for explanations. In answering the child's questions, there is one thing that the sincere parent must learn early — that is, how to say, "I don't know." This, as you have no doubt observed, is a very difficult thing for most people to learn; but it is absolutely essential if you are to retain the confidence and respect of the learning child for a long time. Many people fear to say these words, on the supposition that to admit ignorance is to weaken the regard of the questioner. The other side of the problem is to retain the regard of the child after he finds out that you have been pretending to knowledge and understanding which you do not possess.

[**Need for coöperation.**] — When it comes to questions about matters of fact — such questions as have to do with names and dates and places and authorship and geographical or scientific data — you will often be cornered for lack of the necessary knowledge. To have learned to say "I don't know" in such situations is not sufficient. The next step is to accept your share of the child's burden, and make the problem a common one for the two of you. "I don't know, but let us see how we can find out." This should express the attitude of the helpful companion. You might send your daughter to the encyclopedia, or to some other repository of knowledge, or you might arrange to look the

matter up together. When a child is actually in search of information on any subject, he ought to get it and he ought to get it while his interest is still active.

[**Specious answers.**] — Questions as to how and why things are thus and so need to be treated in a somewhat different way. The easiest thing to do when Henry asks, "Why has the elephant such a long nose?" is to tell him that it is natural to elephants, or that God made it that way, or that this enables him to pick his food from the ground without too much effort. A little reflection will show us that such answers really do not explain. And as a matter of fact, such questions cannot be answered in a common-sense way. The best we can do is to direct the child's attention to the relation of the elephant's long nose to the conditions under which the elephant lives and gets his food and to get him interested in finding out just how the organs of the animal work. In the same way the working of a mechanism of any kind — which is likely to be especially interesting to boys — can be explained by referring to the connections between the parts, or to the relations between the processes and the products. Where the explanations can be connected with the child's earlier experiences this should always be done. So far as possible the child should be encouraged to think out the answers to his questions in terms of what he already knows; careful questioning in return for his questions will often bring the desired result.

[**Growth in questioning.**] — Not only should the child's past experience be utilized in helping him answer his own questions, but so far as may be all of his past experience and knowledge should be related to every new question. To show the child that his question about where cocoa comes from means more than getting the name of a country is to give him more than he knew enough to ask for. Show him that getting cocoa means industry and trade and navigation and the hard work of thousands of men and women, and make every question so worth while that drivel can find no place in the child's day.

[**Mixed motives.**] — No child should be allowed to acquire the habit of inflicting pain on lower animals, or to cultivate delight in the sufferings of others. But neither should any parent condemn Harold for his cruelty just because he pulled a butterfly apart. You do not think your child is cruel because he is overanxious to open every parcel that comes into the house, or because he once cut a doll open to see what the stuffing was made of. A child with a certain amount of initiative and curiosity will investigate the structure and insides of everything that he can possibly take apart. While he is still young and inexperienced, he makes no discrimination between dissecting a toy dog and a live insect. It is therefore not necessarily his cruelty that makes him do such shocking things but a combination of his curiosity and his ignorance, and these are the factors we have to deal with.

Now the curiosity is in no way objectionable. It is an instinct to be cultivated. The child will need to be trained to satisfy his curiosity in certain directions, and in effective ways. But his ignorance has to be overcome, and that is the end of much of the experience that we deliberately put in his way under the name of "education." There is a suspicion of cruelty only when the child is old enough to have a clear idea what suffering means, and to realize

that other beings can suffer as he can, and from the same causes as those that make him suffer.

Moreover, we must distinguish between the brutality that is a rather negative callousness or indifference to suffering, and the positive cruelty that derives satisfaction from the suffering of others. There are very few children who manifest cruelty in the latter sense. It would be obviously unwise to treat such acts of cruelty by means of whippings or other punishments that are in their way as cruel as what the child does. To give a child a pet dog or cat or bird, to let the child learn to love the pet, will do more to cultivate his sympathy than a whole year of daily sermons on being kind.

THE SKEPTIC*

JOSEPH LEE

[The age of exploration.] — The Big Injun age is on its intellectual side, as Froebel has told us, the age of exploration, when the child turns over every stone to see what is under it, climbs a tree to discover the strange countries lying beyond the garden fence, and when he goes to walk returns with mice and spiders and other weird and distressful specimens in his pockets. Boys like to take a bee line across country, not because they really think it is shorter, but because of the swamps and fences, gardens and chicken yards, "mosses, crossings, slaps, and stiles," and other perils and adventures it is likely to take them into. Everyone knows that the many-counseled Odysseus did not really want to get home too easily; and the child is now at the Odysseus age. . . .

[Concrete experience.] — It is the age of things, when almost any object appears worthy of investigation, when the child's intellect, like his physical appetite, seems both omnivorous and unlimited, when

> The world is so full of a number of things
> I'm sure we should all be as happy as kings.

This is especially the age of coming close to nature, not by way of book knowledge or platonic appreciation, not through lists of words with no experience behind them, but by sight and feeling, taste and smell, by entrance into the intimate society of all kinds of facts, establishing comradeship with birds and beasts and waves and winds and fire and electricity. It is the age of making the personal acquaintance, through peace or war, of the squirrel, the chickadee, and the neighbor's dog. The child of this age ought to be in the country. There is his world, the fulfillment of his prophetic curiosity, the assemblage of those objects and opportunities to which his instinctive interests relate. The summer tide of childhood should set away from cities to woods and farms and summer camps. There should be great extension of the country week, of expeditions to the beach and farm. And play provision should largely take these forms. . . .

* From *Play in Education*, Chapter XXIII. The Macmillan Company (1915) 1923.

This is the age of dissection, investigation, first hand experiment, for puzzles and conundrums whether presented by nature or by man; the time to see what the doll's insides are made of, to locate the squeak in the baa lamb, to find what makes the wheels go round. It is the time to explore the gustatory properties of sorrel, of beech, spruce, or linden buds; of seaweeds and grass pulled out of its stem, of ants, acorns, and various nuts; the time of unlimited gorges at the currant bed or in the blueberry swamp, to say nothing of that disastrous day in which the raspberry was loved not wisely but too well, or of disappointing experiences with soap, horse chestnuts, and other objects presenting a fair outside. The small child is a convinced disciple of the laboratory method, testing things by fire and water and touch and taste and by getting up and jouncing on them. His mind is clearer and more empty than at any previous or succeeding age. He is the great skeptic, and therefore the great learner of all time.

Now is the time for kites and bonfires, fire engines and water wheels; for baking clay, pouring lead, and seeing how rubber really smells when it is melted; for hunting and fishing and bird's-nesting. It is the time to smoke out the really interesting fact — see what you can do with things, or what they can be made to do, that is worth while — to get out of each its full reaction, the biggest event, crash, shriek, catastrophe, it has to give. . . .

[**Experimentation.**] — Children should have a vast variety of materials not merely to use in definite and foreseen ways, but to try experiments on. The passing of the woodshed and the old garret have been a loss to education, not compensated by anything that the sloyd room, the school laboratory, or the playground have yet provided. A truly educational environment contains not only sand and boards and blocks but old boxes and broken furniture, odds and ends of wood, nails, screws, tacks, staples, straw, tin, lead and iron, glue, paint, clay, sandpaper, things to cook with, and means to explore the infinite variety of smells. The world has many faces; every substance has a trick and a language of its own, and the child is entitled to the whole vocabulary.

It is not merely aptness in dealing with material things that is at stake; the child's whole future effectiveness depends in many ways upon that full comradeship with nature's world that comes from having grown up with nature as a playfellow. . . . A boy should be at give and take with all sorts of material and with living things for the lesson in the infinitely varied language that nature speaks.

[**The hazard of adventure.**] — Playing with fire is especially important. The nurturing of the baby flame, the coaxing of the embers back to life, the feeding of the growing blaze according to its power to assimilate — the whole process of unloosing the fire demon and controlling him — has educational value almost in proportion to its attraction.

There is fun in touching off any force and then sitting back and seeing things happen as you had planned. A favorite game I knew was setting many blocks on end in a series running up hill, down dale, and round corners, until at last

the final block upset the balance of a tower with a heavy junk of soapstone at its head, whose fall furnished the joyfully foreseen catastrophe.

This is the age of hospitality to mechanical laws, of joyful appreciation of the screw and pulley and inclined plane, of feeling the bite and cogency of levers, of sympathy with the kite and sail and windmill and with the parallelogram of forces — not known as such, but intimately felt in action. The child likes to find how the camphor trunk, and even the big bureau, can be made to dance at the persuasion of a couple of blocks and a bit of joist with his small person on the other end. He will be lever-wise, feel and inwardly possess the compelling power of that method of applying force from that time on.

A wheel has an endless fascination for the young. They seem almost to recognize its service as one of the great emancipators of mankind. To roll a hoop, a ball, a marble, a cart, or even to watch the coachman spin the carriage wheel as he washes it, is in itself a joy; while a big wheel rolling down a hill, even though it finally gets away from you and makes the last hundred yards well under the world's record, to the imminent peril of traffic when it gains the street, represents an acme of exhilaration to be remembered ever after. Half the joy in coasting, sailing a boat, riding a bicycle, is in the comradeship with natural forces. There seems, besides, to be almost a special instinct for the use of vehicles, as shown in the love of sleds, boats, toy carts, carriages, buckboards, steam engines, and automobiles.

[From play to work.] — The Big Injun age is in a peculiar degree the age of tools, of finding where father keeps the hammer and saw and screw driver, and of going to work with them — if not on a boat or a soap box mansion then haply on the parlor furniture. If the chisel is missing, it is probably not the cat who has taken it. Be sympathetic with this hunger of the hand. Even if your hatchet should show the modifying effect of chopping lightning rods or your saw's teeth have been set on edge because your children have cut raw nails with it, be not too severe; in all experimental science the limitations of things have to be established by actual experiment. In any case, be well assured that no child can reach his normal growth without free access to the tool drawer. The tool is a part of Man, his normal complement, as intimate to his active being, as essential to its unfolding, almost, as the hand itself. The tool-less man is maimed, truncated; and the tool-less boy is father to him. And the time for this growth is now when the hand hungers for it, when the sap is running toward this extension. The joint of tool and hand can never be made so well at any later period.

Partly this necessary extension may be won by the handling of any sort of tool or weapon. A child who is merely hammer-wise or bat-wise or racket-wise has at least the rudiments of toolmanship. To some extent, however, it is the particular tool through which he is to find his life and utterance that must now be learned. Musicians say that the violinist should begin by the age of seven, and baseball men tell us that the batting eye must be acquired early. I believe that the stammering utterance of so many of our modern artists is due to an imperfect, because too late acquired, joint with their tools, as though a man's

tongue were to be put into his head after he was grown up. So far at least as to the use of edged tools practice should certainly extend. The pocket knife is surely an integral part of the small boy. With this instrument he whittles his way from the stone to the iron age. And the same ought to be true of the small girl. . . .

[**Social experimentation.**] — The impulse to investigate social phenomena is a great factor in the love of mischief. What makes the small boy pull his little sister's hair is largely his desire to ascertain by actual experiment the exact nature, direction, and social value of the reaction to be thus obtained. It is in this Big Injun age that discovery is made of the special flavor of stolen fruit — clearly a social, not a chemical phenomenon — that surreptitious visits are made to the store closet, that one learns how to stand on one's head in the apple barrel and studies the most unostentatious method of testing the orchard of the old gentleman next door. There are several motives for following these and similar branches of endeavor, but one common to them all is the desire for social research. As a part of his business of testing all things to see what they most truly are, . . . the child is also testing you. He tries these various stimuli upon you to ascertain whether you too are real. And he is testing at the same time the social laws and institutions which you represent. You say "Don't," pretty often; he wants to find out which time you really mean it — just as he sticks pins into his companions in order to determine by actual experiment where they really live. . . .

[**Mischief as research.**] — Mischief is the outcropping of a healthy tendency, but it does not follow that all its manifestations should be indulged, on the playground or elsewhere. On the contrary, to find in you a "mere mush of concession" will falsify the child's reckoning and defeat the object of his search. If you look with bland and equal complaisance upon harmless exuberance and rough infringement of the interests of property and order, he must inevitably conclude that the two are equally permissible. And it is interesting to observe that he will not be pleased by the discovery. . .

He cries perhaps when he burns his finger in the fire or falls through the ice, but he would not care to live in a world of water that was not wet, of fire that did not burn, or of institutions that were capable of no reaction. The child's search for reality in social matters must not be baffled by tampering with the buoys that society has placed to mark the shoals.

Neither, on the other hand, must the tendency to mischief be merely snubbed. As an indication of the main current of his life it must be guided and made use of. A teacher, a leader of some sort, is as much a complement of the child at this stage of growth as the mother at an earlier period.

[**Creative aspects of curiosity.**] — This searching, criticizing attitude of the mind is the second phase of the one great instinct to know — that is, to search and organize our world — for which curiosity is too mean a name. It is the phase of experiment succeeding upon that of intuition. The dramatic age is the age of conceiving things as wholes, getting their general intention and idea. Now comes the time for finding their specific qualities. Nature seems to have

assumed that the child will by this period of his growth have conceived, sufficiently for his present needs, the principal factors in his world — will know well enough how they feel from the inside and when they are at home — and that his great need now is to become acquainted with their practical use and limitations, to establish the frontiers and hard edges of the world that he will have to deal with. It is for this reason that she has implanted in him the necessity to scrape and bang himself against it with so passionate a desire to know, in most concrete and feeling way, exactly what it, and what he himself, is made of. . . .

We call the investigating tendency in children a love of mischief. When they are grown up the same thing will be called science for its own sake. And all the while it is just the perennial instinct of curiosity, the instinct that insists on knowing — that would rather die than not have gone to the middle of Sahara or the North Pole — that would go to the back of the North Wind if that were possible — just to know what is there. It is the instinct that investigates the largest and the smallest, weighs the stars and makes the personal acquaintance of the microbe — partly, and professedly, for the useful results that may be gained, but chiefly and more truly for the sheer love of finding out.

The child, it is true, is not coldly scientific; no true scientist is. Both in its boisterous and in its sympathetic expressions his camaraderie with Nature, won during the dramatic age, survives. He feels akin, beneath the surface antagonisms, with all he meets, and wrestles with Dame Nature in the conviction that she too enjoys the game. His exploring, investigating, testing, collecting, is the entrance of Man the Knower into his kingdom. Fire, water, tools — with edges to them — plants, animals, the sea, the earth, the air, and all that in them is, are his — even the starry heavens are his — if he can find their secret. And to such conquest he is predestined by the invincible desire of his soul.

EARLY CURIOSITY REGARDING SEX*

ALBERT MOLL

The awakening of sex has further effects upon the mental life of the child. Its curiosity is aroused, as soon as the phenomena of pubescence make their appearance, either in themselves or in other children. Long before this, as a rule, the navel has to the child been an object of curiosity. This part of the body seems strange and perplexing, and even in early childhood the genital organs may inspire similar sentiments. The child observes that in respect to such things some reserve is the rule, that a certain shyness is manifested in looking at and touching the genital organs, and for these very reasons the child's attention is apt to be directed to these organs. But curiosity becomes much keener when the signs of puberty manifest themselves. To many a child, the looking-glass serves as a means for the thorough observation of these remarkable signs of development. With amazement the child watches the growth of the axillary and the pubic hair; and in girls attention is aroused by the enlargement of the

* From *The Sexual Life of the Child*, Chapter VII, "Importance of the Sexual Life of the Child." The Macmillan Company (1912) 1919.

breasts. Curiosity then leads the child to seek information about these things from various books, and especially from an encyclopaedia. It is a matter of general experience that the article on Masturbation is eagerly studied by many children, even before the end of the second period of childhood. A search is made for anatomical illustrations, in order to see the genital organs of both sexes. In many cases brothers and sisters arrange to satisfy one another's curiosity on this point. Elder brother and younger, elder sister and younger, or brother and sister, will often seek to enlighten one another as to differences in bodily structure, especially as regards the external genital organs, by means of mutual inspection. Such childish curiosity may be, and often is, altogether independent of the awakening of the sexual life; the real motive is then the rationalist one, if the expression be permitted. But in other instances the curiosity is determined, or increased, by the awakening of the sexual life. Similar considerations apply to the observation of the sexual acts of animals, for which opportunities occur more especially in the country, but sometimes also in the town; in most cases, the motive for such observation in the first instance is pure curiosity, independent of sexual processes in the child. Parents who surprise their children thus engaged, usually regard such investigations as signs of gross immorality; but it is unnecessary to take so tragic a view. It is simply childish curiosity, on the part of those who see nothing wrong in what they are doing. That which is immoral in the adult is not necessarily immoral in the child, who is merely led by curiosity, and by his astonishment at the changes taking place in his body, to study these changes closely. It is not immoral for a child to wish to study *in propria persona* matters about which information has been withheld. Adults are far too ready to interpret the actions of children in the light of their own feelings — a mistake which cannot be too strongly condemned.

EXPLORATION AND MANIPULATION*

Edward L. Thorndike

[**Primary aspects of curiosity.**] — Curiosity is a term which we use vaguely for tendencies whose result is to give knowledge. Many of these exist in man as gifts of nature. Attention to novel objects and human behavior, cautious approach, following with the eyes, reaching, grasping, putting in the mouth, tasting, visual exploration, and manipulation thus make up a large part of "curiosity."

The element not hitherto listed may best be named the love of sensory life for its own sake. Merely to have sensations is, other things being equal, satisfying to man. Mental emptiness is one of his great annoyers. We may justly picture the brain of man as containing many neurones, in connection with the sensory neurones, which crave stimulation — are in "readiness to conduct" — though no immediate gratification of any more practical want follows their

* From *Educational Psychology; Briefer Course.* Chapter V, *Tendencies to Minor Bodily Movements and Cerebral Connections.* Teachers College, Columbia University (1914) 1923.

action. Man wants sense impressions for sensation's sake. Novel experiences are to him their own sufficient reward. It is because they satisfy this want as well as because of their intrinsic satisfyingness, that visual exploration and manipulation are the almost incessant occupations of our waking infancy.

[**Multiform mental activity.**] — The hypothesis that man's brain contains many neurones in "readiness to act" besides those whose action is concerned in the behavior-series of the specific instincts must, I think, be carried further. There are not only neurones ready to be set in action by direct stimuli from the sense-organs, but also neurones ready to be set in action by more remote or secondary connections. For example, a baby likes not only to see a pile of blocks tumble or a wheel go around, but also to find the blocks tumbling when he hits them, or the wheel revolving when he pushes a spring. Satisfactions of the second sort are, indeed, if anything the more potent. Merely hearing the toot of a horn is a feeble joy compared to blowing it. Now "tumbling when I hit them," "whirling when I push," and "tooting when I blow" are samples of secondary connections, a step removed from mere sensations. They represent the action of the neurones concerned in the child's manipulations, those concerned in his sensations and *those concerned in connecting the latter with the former*. They possess the satisfyingness of manipulation, of the love of sensory life *per se*, and something more, which, for lack of a better name, I shall call the *satisfyingness of mental control*. To do something and have something happen as the consequence is, other things being equal, instinctively satisfying, whatever be done and whatever be the consequent happening.[1]

[**Satisfactions from mental activities.**] — Now mental control, or doing something and having something happen, is satisfying in *very many concrete forms*. Not only making movements and thereby getting sensations, but also making an ideal plan and thereby getting a conclusion, making an imaginary person and thereby getting further imaginations of how he would act, and countless other "gettings from doings," are satisfying. They are originally satisfying since, as soon as training gives the ability to make the plan or image and get the result, nature gives satisfyingness to the connection.[2]

Mental activity is then, other things being equal, satisfying almost or quite in general. The neurones concerned in the special instincts are not the only ones in readiness to act. Neurones are roused to action in the course of learning which also were ready to act and whose action therefore is satisfying. It is as instinctive or "natural" for certain men to enjoy the unforced exercise of thought and skill as to enjoy food, sleep, companionship, approval, or conquest.

[1] This is, I judge, the fact which Groos and others have in mind, or should have in mind, when they speak of man's instinct of "pleasure at being a cause" or of "experimentation." A typical illustration of the earlier appearances of such behavior is the following from Shinn (Notes on the Development of a Child — University of California — 1899, p. 10.): In the twentieth month she would often cover her eyes with her hands and take them away; hide her face in a cushion, or on her own arms, often saying, "Dark," then look up, — "Light now."

[2] The "*other things being equal*" is of course implied throughout. Making a connection that has to be made against strong cravings to rest or to do something else may be very annoying.

IV. FEAR

Much of the discussion regarding the sources of fear which is to be be found in the literature of the last two or three decades has been rendered useless by experimental research in physiology and psychology. Bearing directly on the question whether children are "instinctively" afraid of animals, of the dark, of thunder, etc., are the results of Watson's investigations, which are adequately summarized in his own words on pages 202–205,[1] which should be read before the following selections.

Morbid fears and anxieties play such a large part in the life of civilized man that many are disposed to look upon all manifestations of fear as useless or even injurious; we see the perversions and tragedies and think of fear as leading normally to disaster. On the other hand, fear has undoubtedly served a useful function in protecting primitive man against various dangers; and the organism still responds to certain situations by mobilizing its resources for extraordinary exertion. Our problem would seem to be not the elimination of fear (assuming that to be possible), but the avoidance of a fixation of fear at the lower levels of the child's development, and eventually the sublimation of fear into socially usable forms, as is suggested by Lord in his consideration of Courage. (p. 47.) [2]

The possibilities are suggested by comparing the normal transition from fear of the policeman as a menace to personal comfort to fear of disapproval and at last to fear of conscience, or "fear of God." Even in primitive society the taboo is able to overcome fear of danger to the person, fear of pain, fear of death, and to replace these with fear of outraging custom or the spirit of an ancestor. In civilized life the tendency is constant to attach fears to states of mind rather than to possible injury to the body. People come to accept discomfort, privation, and even death, in preference to social disgrace, unfavorable publicity, scandal, loss of prestige, or being out of fashion. There is also a growing disposition to fear possible effects of one's conduct upon the happiness or welfare of others. From both aspects, therefore, that of source or cause of fear and that of effect upon conduct, this emotion shows itself capable of useful modification to social ends.

[1] See Chapter XIX, The Early Years.
[2] See also section, "Courage," p. 139.

Among the social sources of morbid fears should be considered the degree to which the child is subject to suggestions, often casual and unintentional, that affect not only his attitudes but sometimes also his organic reactions. Hypochondrias of all sorts can be traced to such thoughtless influences; and suggestibility is ruthlessly exploited by deliberate application of psychological knowledge, especially through certain types of advertising. Whether it is the fear of declining health and death or the loss of teeth, or the "higher" fear of social ostracism because of bad breath or manners, or because of deficient education or unfashionable furnishings, skillful suggestion effectively modifies conduct. We should consider the possibilities of more constructive use of these forces.

Those who rationalize their tendency to invoke cruder forms of fear as necessary to protect against real dangers, should consider the superiority of understanding danger objectively and intelligently over the highly emotional attitude toward danger. Education must remove fear as an obstacle to growth and development, and cultivate a positive attitude of courage through a progressively higher appeal to the very concerns with the "self" that are at the basis of fear.

BEING AFRAID*

Sidonie Matsner Gruenberg

[Mixed motives in training.] — The heroes of history and the heroes of fiction whom all of us like to admire are the men and women who know no fear. But most of us make use of fear as a cheap device for attaining immediate results with our children. When Johnny hesitates about going upstairs in the dark to fetch your workbasket, you remind him of Columbus, who braved the trackless sea and the unknown void in the West, and you exhort him to be a man; but when Johnny was younger you yourself warned him that the Bogeyman would get him if he did not go right to sleep. And it is not very long since the day when he tried to climb the cherry tree and you attempted to dissuade him with the alarming prophecy that he would surely fall down and break his neck.

Thus our training consists of countless contradictions: we set up noble ideals to arouse courage and self-reliance — when that suits our immediate purpose; and we frighten with threats and warn of calamity when the child has the impulse to do what we do not wish him to do. This at once suggests the effect of fear upon character and conduct. We instinctively call upon courage when we want the child *to do* something; we call upon fear when we want to *prevent action*. In other words, bravery stimulates, whereas fear paralyzes.

* From *Your Child To-day and To-morrow*, Chapter V. J. B. Lippincott Company (1913) 1920.

[**Early appearance of fear.**] — . . . Very young infants exhibit all the symptoms of fear long before they can have any knowledge or experience of the disagreeable and the harmful effects of the things that frighten them. Thus a sudden noise will make the child start and tremble and even scream. And all through life an unexpected and loud noise is likely to startle us. An investigation has shown that thunder is feared much more than lightning. Children will laugh at the flashes of lightning, but will cower before the roaring thunder.

[**Related to the unknown.**] — The feeling of fear is closely associated with what is *unknown*. It is not noise in general that frightens the children, but an unexpected noise from an unknown source. . . . The frightful thing about thunder is that the cause remains a mystery, and it is frightful so long as the cause *does* remain a mystery, if the child lives to be a hundred years old. During a thunder-storm children will picture to themselves a battle going on above. Some think of the sky cracking or the moon bursting, or conceive of the firmament as a dome of metal over which balls are being rolled.

The influence of the unknown explains also why that other great source of fear, namely, darkness, has such a strange hold upon children. Fear of darkness is very common and often very intense. There are but few children who do not suffer from it at some time and to some extent. This fear is frequently suggested by stories of robbers, ghosts, or other terrors, but even children who have been carefully guarded sometimes have these violent fears that cannot be reasoned away. . . .

[**Overcoming fear.**] — It is well known that the feeling of fear is often very intense among children; and where it is due to ignorance it is not right to laugh it away. Doing so affords no explanation. The ridicule may cause the child to *hide* his fear, but will not drive the feeling away. Since the feeling of fear is so closely connected with the strange and unknown, the only way that it may be directly overcome is by making the child familiar with the objects that cause such feelings.

In the case of young children with whom we cannot reason it is best, wherever possible, to remove the cause or gradually to make the child familiar with the darkness, or whatever it is that makes him unhappy. . . .

One mother got her boy used to going into a dark room by placing some candy on the farther window and sending him for that. Here the child fixed his attention on the goal and had no time to think of the terrors of the dark. After making such visits a few times the boy became quite indifferent to the darkness.

Another ingenious mother gave her little daughter who was afraid a tiny, flat, electric spotlight which just fitted into the pocket of her pajama jacket. She took it to bed with her, slipped it under the pillow, and derived such comfort from it that the whole family was relieved. The child soon outgrew her timidity.

A child who from infancy has been accustomed to going to sleep in the dark and suddenly develops a fear of it ought to be indulged to the extent of having a light for a few minutes to show him that there is nothing there to be afraid of. It may take a few evenings and several disagreeable trips to the child's bedroom,

but in the end he will be victorious and you will have helped him to win the victory.

[**Health and fear.**] — A child that is not in good health is likely to be possessed by his fears much longer than one who is well. In the latter case there is a fund of energy to go exploring, and the child thus becomes more readily acquainted with his surroundings, and as his knowledge grows his fears vanish. Again, the sickly child has not the energy to fight his fears, as has the healthy child. Indeed, the high spirits of the healthy child often lead him to seek the frightful, just for the exhilaration he gets from the sensation.

[**Imagination and fear.**] — The period of most intense fears is between the ages of three and six, and while imaginative children naturally suffer most, they are also the ones that can call up bright fancies to cheer them. Robert Louis Stevenson must have had a lovely time in the dark, seeing circuses and things, as he tells us in his poem which begins:

All night long and every night
When my mamma puts out the light,
I see the circus passing by
As plain as day before my eye, etc.

Although fear is a human instinct, it is not universal, and once in a while we find a child who has no instinctive fear. If such a child is not frightened he may remain quite ignorant of the feeling for many years. . . .

[**Fear and caution.**] — We must be careful to avoid confusing fear with caution. Fear is not necessarily related to any real danger. Caution, on the other hand, is a direct outcome of the knowledge of danger. Two little boys were watching a young man shooting off firecrackers. Whenever a bunch was lit the older boy stepped away, while the younger one held his ground. Someone taunted the older boy, saying, "You see, Harry is not afraid, and you are." To which he very sensibly replied, "I ain't afraid neither, but Harry doesn't know that he might get hurt, and I do."

While we do not wish our children to be cowards, neither do we want them to feel reckless. Caution and courage may well go together in the child's character. Constantly warning the child against possible danger does not develop caution; it is more likely to destroy all spontaneous action. Too many mothers are always saying to their children, "Don't do this, you might hurt yourself," or "Don't go to the stable, the horse may kick you," and so on. If a child is properly taught, he will get along with the ordinary knowledge concerning the behavior of things and animals that might be injurious, and he will learn to be careful with regard to these without being constantly admonished and frightened.

[**Fear of opinion of others.**] — The fear of being considered afraid has its evil side as well as its good side. While it may often make the child "affect the virtue" when he has it not, it does, on the other hand, make many a boy and girl, especially in the early teens, concede to the demands of prevailing fashions in misconduct, when the conscience and the knowledge of right and wrong dictate a different course. The taunt *You dassent*, is stronger than the still

small voice saying, *Thou must not.* And so Harry plays truant for the first time not so much because he is tired of school, or because the smell of the young spring allures him, as because Tommy "dares" him to go swimming on the risk of getting caught and licked. Harry yields for fear of being called a "cowardly custard."

It is important to guard against the moral effect of fear when it is directed against the judgments of others. By always referring the child to "what others will think" of him, we are likely to make moral cowards. A child can be taught to refer to his own conscience and to his own judgment, and, if he has been wisely trained, his conscience and judgment will be at least as effective guides in his relations with human beings as his attempt to avoid misconduct for fear of what others will think or say.

[Fear in discipline.] — The use of fear as a means of discipline is being discarded by all thoughtful parents and teachers. We have learned that authority maintained by fear is very short-lived; when a child gets past a certain age, the obedience based upon fear of authority is almost certain to turn into defiance. The fear of punishment leads directly to untruthfulness and deception; parents who rely upon affection and good-will to assure the right conduct of their children get better results than those who terrorize them. . . .

When we observe the undesirable physical effects of fear, such as the effect upon the heart and blood-vessels, the effect upon nerve action, we can hardly expect it to have a beneficial effect upon the mental or moral side of the child's nature. Fear always cramps and paralyzes; it never broadens or stimulates. All the progress made by our race has been accomplished by those who were *not* afraid, by the men and women of broad vision and independent, fearless action. . . .

DEVELOPMENT OF FEAR*

EDWIN A. KIRKPATRICK

[Biology and psychology of fear.] — The period of greatest fear, though it varies with special experiences, is usually at about three or four years of age. No matter how careful parents may be about having their children frightened by stories or otherwise, they usually become at this time virtually little "'fraid cats." Biologically, this is the time when they begin to act for themselves to some extent away from parents, and consequently the time at which readiness to become frightened and run home would be most useful. Psychologically, it is a time when the imagination is very active, and when its action is not limited by any fixed laws of possibility or probability. Children, however, who are unimaginative, or who are fortunate enough to escape fearful experiences, are often at this time literally without fear. Never having experienced it they do not know what it is. A single experience, however, in which the child is really frightened (not merely hurt), may transform him into an arrant coward.

* From *Fundamentals of Child Study*, Chapter VII, "Development of the Individualistic Instinct." The Macmillan Co. (1903) 1922.

[**Fear a waning instinct.**] — Fear should be and usually is a waning instinct, yet one that never entirely dies out. As the child becomes better able to take care of himself, and more familiar with his surroundings, fear in the sense of a sudden and strong emotion becomes less, though perhaps in the sense of caution or prudence is increasing. With progress in civilization, and knowledge which makes the conditions of life safer, and leads more and more to the belief that even the unknown is governed by known laws, fear should gradually die out.

Undoubtedly, there is less fear than formerly, but many people suffer all their lives from fears which are usually quite unreasonable. Some of these fears of natural forces and forms, such as thunder, fire, water, caves, reptiles, and insects, may be survivals from more primitive conditions of life; but they are probably merely transmitted from one generation to another by social heredity. Others of them, such as of guns, engines, knives, etc., cannot possibly be instinctive. . . .

[**Dealing with fear.**] — As to modes of dealing with the fear of children, a few general principles only are clear. Occasions of fear should be avoided as far as may be, and when it is excited, reassurance given as quickly as possible. . . . To compel children to endure terrors is decidedly cruel, and utterly useless as a corrective. If their fears can be allayed by temporarily bringing a light or otherwise removing the cause of fear, or if the child can be induced to be "brave" and face it himself, much is gained. Unreasonable fears, which are the most common and least dependent upon experience, cannot, as a rule, be dissipated by reasoning; but one can only trust to quieting assurances, time and experience, and the growth of courage and self-control, to effect a cure.

Fears caused by unfortunate first experiences with a class of objects may usually be dissipated by reasoning and favorable experiences. The quicker such cure can be applied, the better. For example, a two-year-old boy was frightened by a thunder-storm; but at his first call, suggesting rising terror, his father went to him and talked to him, comparing the flashes to the lighting of great matches, and remained with him awhile, admiring the beauty of the storm. The result was that he never afterward showed fear of a thunder-storm.

ANXIETY STATES*

Tom A. Williams

[**Anxiety and worry.**] — Anxiety is merely chronic fear. It affects the bodily functions in a similar way. The sources of the anxiety are not always apparent to the patient. There are several reasons for this. One is the complexity arising from the failure of the circumstances which arouse the anxiety to lend themselves readily to a clear grasp of their import. The preoccupation by the anxiety, which might lead to a discovery of its causes if scientifically

* From *Dreads and Besetting Fears*, Chapter V, "Anxiety States"; Chapter VII, "Fear of Crowds, Open Spaces, etc."; Chapter XIII, "The Utilization and Management of Fear." Little, Brown & Co. 1923.

directed, is usually a mere worrying repetition of the fact that one is anxious and not an investigation of circumstances at all.

A second reason militating against an understanding is the patient's reluctance to face honestly what he feels might be discreditable. A third is a tendency to be carried away by the feelings and a lack of power to pause for a logical judgment.

To this tendency is given the name of suggestibility. It is highly developed in primitive people and in children. It is subdued or diminished in proportion as one is trained into habits of logical thinking, more especially where the management of the emotions is concerned.

Many seeming exceptions occur to this statement. Examination of these show that the training of these persons has succeeded only concerning a portion of their activities, such as, for instance, those concerned with their occupation. Many a man of highest acumen in the scientific world or in business is the easy prey of the suggestions of the salesman or of the medical charlatan. . . .

It is often a willing blindness motivated by wishes of which the person is quite aware, but of the relation of which to his thinking he is not appreciative.

[**Anxiety and bodily disturbances.**] — Self-preservation is fundamentally the strongest of motives, and fear of death or of the disability which will prevent livelihood is not confined to immediate emergencies but may be a prolonged sentiment expressing itself in what we call anxiety. That is why the bodily functions are so frequently the center of preoccupation in states of anxiety. And it must be remembered that emotions distressing in themselves repercuss in different ways in different people so as to give rise to different bodily sensations. One person may shiver along the spine, another may palpitate, another choke, another urinate, another vomit, in another the hair may stand on end, in another the skin may be suffused with a flush in some part of the body or face. The mouth may become dry, the intestinal movements may stop, the secretion of gastric juice may be arrested, a cold sweat may break out, the patient may tremble, he may even drop to the floor, or become unable to move or speak, with thinking almost arrested. The consciousness of any of these bodily states may lead to anxiety concerning the whole body or only of the function which seems affected. . . .

[**Fear and self-preservation.**] — A state of fear puts out of immediate court all other considerations than one's own safety and that of one's offspring; and therefore the person who is afraid is disregardful of the rights, including the safety, of others. Panic-stricken men have trodden down women and children, seeking egress from a building on fire; they have deserted the helpless on vessels at sea by strength or craft, absconding with the only means of safety. These are the baser souls; for there is a powerful tradition among seamen which overcomes this gross self-seeking, a tradition which obliges the captain to be the last to leave the vessel, and then only when he has verified the safety of every one upon it, tradition that makes it a matter of pride in every seafaring man to see that his passengers and even his freight shall be saved if humanly possible. It is the same spirit which animated the soldiers who went down to certain

death on a sinking steamship, presenting arms while their band played in order that the boats might be spared for the civilian passengers.

But the selfishness engendered by fear need not be strictly personal for it is even stronger in parents in regard to their offspring, and it may even extend beyond the family to the immediate community and even to a nation. Many national policies are founded upon fear, as has been clearly shown forth during the aftermath of the World War.

[**Suggestibility.**] — The casual greeting, "How are you?" sometimes sets up, in a sensitive person, a train of thought that brings with it a whole list of physical ills not thought of before. Much has been said lately about the moral effect of the presence of the American troops in the European trenches aside from the real reënforcement of man-power. Bishop Brent insisted that the mere appearance of the American flag on the battle fields of France, no matter how small a force of men accompanied it, would be sufficient to hearten the whole French Army and send it on to greater victory. Instances of the power of an idea might be multiplied, but it is evident that the human mind is easily swayed by impressions. It seems to me important, then, to see just what sort of big ideas are dominating our lives and giving color to our work. . . .

[**Fear inhibitory.**] — But though fear has a protective value as the root of prudence yet when it leads to paralysis of effort it cannot be tolerated by the noble man contending against circumstance. Fear is the first of the four natural limitations which must be transcended if true nobility is to be achieved, is declared in *The Research Magnificent* by H. G. Wells. The others are physical indulgence, jealousy ("that instinctive preoccupation with the interest and dignity of self") and prejudice; and "Benham," the hero, tries to subdue fear both by shame and anger.

[**Functions of fear.**] — The functions of fear are of two sorts. In the first place, it has a biotonic function — that is to say, the arousal of the greatest potency of the resources of the organism toward the avoidance of danger. . . .

The second function of fear may be termed cultural or pedagogic. For the survival of primitive man his attention had to be strongly engaged in two directions: first, in the obtaining of food; second, in the avoidance of destruction, that is to say, danger. The fear of what threatened him aroused him to circumvent it and hence developed his intelligence by provoking intellectual interests. That is the origin of science.

Fear is the greatest stimulant to foresight. Therefore it is the mother of prudence, and it is the prudent who survive and the foolhardy who perish. It is those who learn what to fear wisely who survive. . . .

Fear is the foundation of respect for others, without which there can be no social life. But this fear should be transmuted into regard and be tacitly expressed by a dread of demeaning oneself by inconsideration. But as a matter of fact the prevalent existing motive is fear of obloquy, ostracism, of the opinion of one's public, however restricted that may be. Without fear of this kind few children would apply themselves to learning or to good manners. The

spoiled child is a daily witness to abnegation of the fear motive by obtuse parenthood.

Nevertheless, as intelligence is gained, dread of discomfort inflicted by authority must be transformed into self-consciousness which will not permit one to fall from the ideal attitude towards others known as respectful. This, of course, must begin as a fear of losing the good opinion of the person to be respected. But ideally this may develop into Aristotle's perfect virtue, *i.e.*, good behavior pursued for its own sake, expressed elsewhere as, "the perfect love which casteth out fear."

TRAINING FOR COURAGE*

HERBERT GARDINER LORD

[Attitudes not native, but to be attained.] — Men are not born brave or cowardly as fixed unalterable facts. They may be made either. A man is not born made; he is to be made. Even when made, he can still be remade. . . .

The Duke of Wellington once exclaimed, "Nature! Habit is ten times nature." Nature as inborn, unorganized mechanism is not to be depended upon. These mechanisms may go off at any time in undesirable ways with disastrous results. It is only as these are fixed by habit to act in certain situations in a well-nigh mechanical, inevitable way is there safety. Thus fear situations that by instinct cause flight may by training come to cause attack. A different motor response is made to follow than the instinctive one. So by drill there may be substituted for all instinctive situations of fear other actions than flight actions. The actions belonging to other instincts can be tied firmly to disgust or fear. The sensitive nurse in the presence of disgusting wounds acts from pity, not disgust. The timid man before a danger acts from instincts of self-assertion, or anger, or parental affection, not from fear. When these acts of other instincts than fear are by drill securely and permanently attached to fear situations, you get the courage of habit, which is for permanence and strength ten times nature. By drill you fortify a man, past all likelihood of change, against relapse into instinctive action. By drill you strengthen ever more and more the connection of the substituted action in place of the inborn one.

[Habits to replace native impulse.] — All possible situations of fear, so far as discovered by actual experience, or imaginable by forethought, must have attached to them fixedly other forms of action than the inborn instinctive ones. And until this is done, a soldier in face of new situations of peril is like the pugilist confronted by a new blow of his opponent, he has not yet an established mechanism to meet it. In such a case the action may be unseemly and disastrous flight. When a substituted form of action is not at hand, native instinct acts. . . .

* From *The Psychology of Courage*, Chapter X. John W. Luce & Co. 1918.

[**Relation to thought habits.**] — When consciousness is confused, when a man sinks to instinctive levels of existence, these habits, being by nature artificial connections, are broken up and inborn mechanisms are apt to hold sway. Thus training has to be of habits of thought, of intelligence. A man must be so firmly organized in habits of thought, as well as in those of act, that in difficult and strange situations he may keep and not lose his head. He keeps his thoughts and acts above and well out of the level of instinct, and habitual action follows intelligence, and native impulse is supplanted by acquired mechanism.

V. CONSTRUCTING AND DESTROYING

At first thought no two facts could be more different or more opposed to each other than the fact of making useful things and the fact of unmaking or spoiling them. Yet from the point of view of the developing child the two are in many ways identical. In the early stages the child's impulses are to move, to handle, to shake, to pull, to squeeze — undifferentiated processes that result from using untrained muscles and nerves while objects or materials happen to be in hand. If shaking a cup results in something falling to the floor, the drop is not a part of the child's purpose or impulse; if the fall results in breaking the cup, that may be unfortunate, but it is not a part of the child's purpose or impulse.

The injury which often results from the child's unrestrained activities is an injury to adult values. To the child the first concern is with free movement. Later the child becomes aware of producing effects with his movements — noises, separations, impressions. He derives satisfaction from having made a dent in a piece of bread or a piece of clay, from having shaped mud into a cake, from having piled a block upon another. It is probably this satisfaction that is the motive of much later activity which adults find difficult to understand, or which adults classify as wanton, or mischievous, or destructive; for with the same impulses and purposes the child may smear mud on a clean floor or wall, he may upset his pile of blocks or a more precious pile of things, he may in general put his hands where — according to adult interests and tastes — they do not belong. The child must have a way of impressing himself upon his world, and if he may not find one way, he will find another.

There is a great deal of truth in the notion that *toys* and *tools* are interchangeable terms, that both are instruments for achieving human purposes at different levels of development. From this point of view one is as necessary as the other, and the later achievements become possible only as the earlier purposes have been satisfactorily fulfilled.[1]

The play motive and free impulses that find their outlet in occupation with toys make for unity of purpose and concentration, and so result in skills and insights that a more formal or a coerced occupation

[1] See also "Play and Work," p. 79.

can never yield. With the growth of understanding and purpose, these same skills and insights serve to make the manipulation of tools more effective.

We may not expect that a person's career will be directed by placing certain toys in the hands of the child. We cannot hope to manufacture genius by means of standardized toys, be they ever so "educational." It is quite certain, however, that many a person's development has been seriously crippled by the lack of suitable means for playing during childhood, and that many a distinctive achievement received its inspiration or its mastery of detail from an appropriate toy.

It is from toys then that the individual is likely to get seriousness of purpose, concentration, perseverance, and the imaginative reconstruction of the future in terms of reality, as distinguished from an evasion of the present in terms of phantasy.

The study of children's activities at various age levels leads to certain practical conclusions for both the school and the home. Children must be furnished opportunities to become acquainted with materials of all kinds, and to handle such materials under various conditions. They must be given the opportunity to take apart various common objects and encouraged to make or reconstruct various things. To recognize these needs and to make provisions for meeting them is not only to protect our precious properties from destruction by the undiscriminating child; it is to lead the child on to a progressive use of his native impulses in more and more creative forms of activity.

SENSATION AND PERCEPTION*

Amy Eliza Tanner

Sensory experiences fundamental. — The best preparation for school training is plenty of contact with natural objects, and wise parents will see to it that children have playthings and possessions which give a wide range of sensory qualities.

Bright, pure colors, and harmonious combinations of them, beautiful forms and sweet sounds, should be provided. For the hand, all sorts of objects, hard and soft, smooth and rough, accompanied by all the other touch qualities, should be supplied, and they should be of such a nature that they can go into the mouth without injury. A child must have objects to handle, even though we do object to having our nice things spoiled by hot little hands and wet mouths. If a child cannot handle things his knowledge of them is always imperfect, and so he must be provided with things that he can work over to his heart's content.

* From *The Child*, Chapters VII, "Sensation and Perception," and Chapter XX, "Play." Copyright, the Rand McNally Company (1904), 1915.

Hall found that kindergarten children were distinctly better than those who had not had this training.

[**Play with toys.**] — The kindergarten period, up to the beginning of the second dentition, is especially the toy period. The plays usually center about some object upon which numerous imaginings can be based, the doll, the engine, etc. But it is not at all essential that the toy should be elaborate. It is better for a child to be supplied with plenty of material, such as blocks and sand, from which he can make many things, and with some simple toys, than to have expensive mechanisms which he cannot shape to his will. He ought to be able to take any toy to pieces and put it together again without injury to it.

Almost anything will serve a child for a toy, when he is left to his own inventions — flowers and leaves, twigs, berries, grass, bits of glass and china, iron, cloth, etc. — anything that will serve as a peg for his fancy.

It is noticeable, however, that when children make toys, they usually only copy, making sleds, hammers, axes, etc.

[**Dolls.**] — The universal toy is, of course, the doll, upon which both the invention and imitation of the child expend themselves to the utmost. . . . The love of dolls appears to reach its height in the ninth year, although strong from the third year to the twelfth. Many girls play with dolls until they go into long dresses and are ridiculed for their love of it; and not a few women confess to the existence of the passion.

TOYS AND THEIR SELECTION*

Minnetta Sammis Leonard

[**Material things in education.**] — Careful studies have shown the important part the world of "things" plays in the process of education, and the necessity of considering toys as one great class of materials which influence character development in children. Many standards which guide in the selection of the play equipment for the nursery school, kindergarten, and modern elementary school apply alike to a good home outfit.

[**Uncontrolled factors.**] — We have no control over *what* appeals to the child's interests and gives him pleasure. All children love racket and almost constant movement, whether we like it or not. . . .

[**Controlled factors.**] — We have nothing to say about *when* an interest will develop. By the laws of the child's inherited nature certain things at certain ages bring out definite responses upon the part of the child. . . . But we *do* have some control over the things which we allow to come into the child's environment as stimulators and to become the exercisers which develop his habits.

We have control over two factors: (1) Of those things which the child's nature makes attractive we can *select* the desirable and *avoid* the harmful. (2) We can give opportunity for the use of those playthings which we deem desirable and assist the child in getting the most good from his play.

* From *Best Toys for Children and Their Selection.* Minnetta S. Leonard, 2230 Van Hise St., Madison, Wisconsin. 1925.

[**What toys do.**] — In choosing desirable influences to put about the child we need to select good toys because:

A. As a class they give the pleasure or interest element which must be present wherever strong permanent habits are formed.

B. Toys also assist the child to accumulate a first-hand knowledge of things and to get those facts upon which all true thinking must depend. The boy who learns to operate an electric train before he reads about the uses of electricity in his books carries with him a fund of first-hand knowledge to make his reading meaningful. The child who has put every effort forth to draw or construct a street car has seen more details about a street car than he could get in any other way. Fractions become clear where he has divided plenty of real things and put them together again, and he knows what his lessons in physics or chemistry are about when he has spent hours in play experiments with things.

C. Toys furnish the right stimulation and outlet for imagination, as in make-up stories, dramatization, and art work. A toy telephone suggests immediately mother or an imaginary friend who would be interested in a conversation, a grocer who waits for an order, or a daddy waiting at his office to be called home to dinner. A doll or a teddy bear, a bed or doll carriage, and a chair, perhaps, suggest a home where a play mother can act out the various activities of a real one or start a visiting game to an imaginary neighbor. Blocks call up a vision of a house, a boat, or a village, and a bit of colored paper, a pretty box, a book cover, or a paper doll's dress which, with a little work on the child's part, may be made real. Things to be made develop the type of imagination needed by the expert dressmaker, the window trimmer, the good architect, or any artist — constructive imagination.

D. Toys furnish at the same time the correction necessary for drawing distinctions between reality and imagination, fact and fancy. Keeping children closely in touch with reality is a special value found in the constructive toys such as blocks, clay, cardboard, or wood-work. A child may find infinite pleasure in dreaming of the wonderful things which he can do. He even thrills his companions into believing many of the stories he weaves about himself and his achievements. This, under control, is not bad, but there is no bodily effort or mental exertion required to realize his dreams, nor any tangible measure by which companions can help him to check up his achievements. . . . If from the earliest years, however, the child is led to struggle to make his dream, say of a basket, come true, he gets a pretty fair idea of what he can do when the basket is put to the test of really holding something, and he he may also have a true estimate from his playmates regarding his abilities. When his efforts are successful he gets a thrill from achievement which mere dreaming cannot give.

[**What to look for in toys.**] — In buying toys several questions should be considered:

I. What good habits may be encouraged through play with this toy?

1. The habit of keeping wholesomely busy is first and obvious.

2. If activity is properly directed there is not only the habit of happy employment but of productive employment. The child learns to love real achievement. From productive activity comes self-respect and happiness for the individual. Also out of this develops the individual of the most value to society, the producer, the creator.
3. Along with achievement in making things, develop purposive thinking about ways of doing things and materials appropriate to use, and judgment regarding the results of these choices.
4. From making things to use in play develops the sense of beauty and appreciation of good workmanship by others.
5. Control of will and effort toward accomplishment of a purpose comes the more easily where the purpose is meaningful to the child, as his play schemes are.
6. Habits of care for materials, economy in their use, neatness, order, and thrift may be easily developed through playthings.
7. Many interests which start as play may carry over into the hobbies of adult life, such as fine arts, craft work, carpentry and even scientific research, which at the very least furnish relaxation from work, give breadth of interest, and hence safeguard against cheap movies, trashy reading, bad companions, and other wasters of time and energy, and which may be of great and fundamental benefit.

[**What to avoid.**] — II. What bad habits may be fostered through the wrong use of toys?

1. Lack of playthings and the wholesome activity they develop may lead to idleness, mischief, and day dreaming. The child is prey to evil suggestion and evil companions. The idle child gets into mischief when left alone. The idle child is usually peevish and irritable.
2. Too many playthings, on the other hand, lead to many evils: carelessness and destructiveness, greed, extravagance, love of sensation, fickleness, and indifference.
3. Do-nothing toys stimulate laziness and love of being entertained.
   (*a*) Toys which *do it all*, like most of the mechanical toys which one only rubs on the floor or works with a key and then sits back to watch, encourage idleness. They are a waste of money because they quickly exhaust interest and are easily broken. The train and sometimes the auto are exceptions among the mechanical toys because they suggest many things to build or construct to go with them, such as houses, villages, signals, and the like.
   (*b*) Toys too hard for the child to use encourage idleness and desire for being entertained, because an elder must do the work while the child looks on.
4. Novelties picked up at random from the corner store and ten cent stores and the great variety of party favors are real evils to be dealt with. If rightly used, as suggested earlier, to stimulate the child to try making similar toys for himself, these stores may be sources of

value. But to the child who is used to getting whatever he begs for or a present every time mother goes down town, these stores become a real evil for the child. He expects some new excitement always; and he tires of the old, and gets no idea of the value of money. We may thus develop very early all the false standards which we deplore in the older girl who must be having the very latest in dress whether she needs it or not, and in the boy who insists that his father must dispose of the old auto for the very newest model because so and so has one. The child brought up on thrills and small extravagances is not going to change when the real temptations of adolescence come.

5. Cheap, easily breakable toys develop carelessness and callousness. Habits of "I don't care· it'll break anyhow; I'll get another" are thus developed.

[**Relation to stage of development.**] — III. Among those which could be chosen, which [ones] are of most vital importance and which [ones] can wait until a later time when the interest and need are stronger? To illustrate: While reading and number interests may appear before the school age, they are before the age of six merely dawning interests and will grow stronger. They are sure to receive adequate attention later anyhow. To foster these now would take time and attention away from activities which are of greatest immediate importance, and which may not be so well provided for later, as for instance, contact with nature, handwork, and plenty of exercise of the large fundamental muscles which provide the background in bodily control and mental grasp for mastery of school subjects.

[**Suiting the toy to the child.**] — There may be no question about the value of certain toys for children; but no matter how good the toy, it may be useless if given at the wrong time. A *meccano*, for example, however valuable for the six- or seven-year old, is thrown away for the three-year old, and however much good a sewing outfit may do the nine-year old child, it may be positively harmful for the four-year old, who should be guarded from all eye strain and nervous tensions.

The toy should be chosen with regard to, first, what makes greatest appeal to the child at any given age, and, second, what best stimulates and exercises the dominant interests toward establishing the most desirable lasting habits.

[**Grading toys.**] — Again, best results may be had through grading toys to suit various ages. Beginning with the simplest toy, for example, a plain doll or the simplest kind of engine, and giving from time to time one which is a little more complex or elaborate, will help the child to get all the good possible from that type of toy over a long period of time. A strong composition doll of medium size with painted hair and fixed eyes suits all the needs of the two-year old. Between this and the lovely breakable life-like and life-sized doll which only those who can appreciate should own, there is a great variety of dolls — all the rag dolls, lovely painted handmade felt dolls, wooden and composition dolls of all sizes and styles — to be enjoyed. By eight or nine, my little mother is perhaps interested in details of baby tending. Even when there is no baby at home she likes to find some baby to watch at its bath, to see dressed and fed,

and she is eager to know how to sew for and tend wee babies. For this child, if she has not been spoiled by owning too many possessions, the life-size newborn-baby doll with soft cuddly body and wobbly head will give great joy and teach useful lessons. To give the best first is to rob the child of this growth and pleasure. Dishes, doll carriages, blocks, paints, and handwork materials should always be graded in this way.

Giving the best toys first also encourages extravagant ideas and sets wrong standards. We should return so far as we can to the simplicity of our pioneer grandparents, who as children got great joy out of little things.

[Need for variety.] — In order that his play should bring all-round development, the child's playroom equipment should contain some toys from each of several classes rather than many from two or three according to the convenience of the adults about him. The apartment dweller particularly must go out of his way to provide toys for a well-rounded physical development because the environment does not suggest or provide these. Swings and rings which clamp onto the doorways without injury to woodwork, and other apparatus can be easily secured by the parent who is awake to this need and tries to meet it. The particular housekeeper, unless she thinks to keep a balance in her child's play outfit, will neglect those handwork toys which cause litter and scraps, or will choose only the small things easily packed away out of sight. A good outfit should represent some toys from each of the following classes:

1. *Physical exercisers* — Playthings particularly designed for this and enough of various kinds to provide for the exercise of all parts of the child's body.
2. *Sense developers* — Playthings which primarily are for pleasure to the senses: water, sand, noise makers, bubble pipes, color cubes which feed love of color, and tiles (which as the child grows older go over into the art designing class) and odds and ends of all sorts which appeal to this love of experiment with things.
3. *Toys for "Make-believe"* — Playthings helping to dramatize life about the child: dolls, animals, toys for housekeeping, playing store, traveling, farming, gardening, and the like.
4. *Building toys* — Blocks, boards, boxes, and carpentry materials.
5. *Handwork materials* — Clay, scissors, plain and colored papers, crayons and paints, sewing and weaving, and the like, which later become the materials used for work in the industrial and fine arts.
6. *Games* — For indoor and out, which develop physical and mental skills and encourage play with others.

CURIOSITY AND INTEREST*

G. Stanley Hall and Theodate L. Smith

[Results no indication of motives.] — *Destructiveness* is too frequently misunderstood, and the child's point of view left out of account. The *motive*

* From *Aspects of Child Life and Education*, pp. 84–141. D. Appleton & Co. 1921. Reprinted in abridged form from the *Pedagogical Seminary*, 10: 315–358, Sept., 1903.

is overlooked, and, considered only on the side of results, the case is certainly rather bad for the child. Out of 1247 cases studied, 352, or 28.38 per cent, involved destruction of property — for the most part toys or the child's own belongings, but in some cases objects of considerable value. The age at which this overwhelming desire to find out the construction of things reaches its height is between four and eight. There appears to be little difference between boys and girls in this impulse to investigation, though the objects destroyed differ somewhat. . . .

[**Curiosity in destruction.**] — The evidence is conclusive that in the cases studied, wanton destructiveness or carelessness played a very small part. Curiosity as to the cause of sound and motion, and desire to see the inside of things were the chief motives which influenced the youthful investigators. They wanted to find out what made the noise, why dolly opened and shut her eyes, what made the cow moo, and what was inside tops, marbles, and thermometers; and grief at the loss of some valued toy was aggravated by a keen disappointment at nonsuccess in finding the noise of the drum or the tick of the watch. Cherished dolls were sacrificed to the overwhelming desire to find out what made the eyes move, or why pressing the body caused a cry. One child cried bitterly after she had spoiled her doll by poking in its eyes, not because the doll was ruined, but because, as she tearfully explained, "Now I can't ever find out what makes dolly shut her eyes. Won't you buy me another one so I can find out?" Numerically, at the head of the list of objects destroyed, stand clocks and watches, many of them toys, though the list is by no means restricted to these. In the younger children desire "to find the tick" is the ruling motive, but this develops into the larger interest in motion and the desire to find out what makes the watch go. The injury done is frequently an unexpected result to the child. So keen and widespread is this interest in clocks and watches, even when not exhibited in the destructive form, that the gift of a cheap clock with permission to take it to pieces affords more pleasure to many children than any number of costly toys whose mechanism cannot be investigated.

[**Educational possibilities in taking apart.**] — Several instances were given in the returns, in which old clocks have proved a source of interest and amusement, and boys of nine to twelve years, after numerous trials, succeeded in putting them together after taking them apart, a feat which certainly has sufficient educational value to compensate for some failures at readjustment. Mechanical toys, more than any others, seem to have the shortest existence in the hands of bright, active children, a fact which suggests that toys so constructed as to show principles of motion and elementary physical laws, without involving their own destruction, are an educational need yet to be supplied. Some such, indeed, already exist, but they are far too few and too little known.

This destructive form of curiosity, due to normal development of mentally active children, needing guidance to be furnished with proper outlet, but not repressed, is not to be confused with the careless destruction of toys, due to lack of interest, which is unfortunately common in children whose interest and powers of appreciation have been weakened and dissipated by overloading them

with toys and diversions until it has bred in them an ennui which has sapped their power of attention and left them incapable of self-entertainment. Healthy children, if allowed to develop under normal conditions, find interests and amusements for themselves, and the child who has been so reared that he wants to be constantly amused, and has no keen desires because they have been too frequently anticipated, has been deprived of one of the rights of childhood. The child who suffers from too many toys is, perhaps, on the whole, more to be pitied than the child who has too few.

FROM DOING TO CREATING*

JOHN DEWEY

The child's impulse to do finds expression first in play, in movement, gesture and make-believe, becomes more definite, and seeks outlet in shaping materials into tangible forms and permanent embodiment. The child has not much instinct for abstract inquiry. The instinct of investigation seems to grow out of the combination of the constructive impulse with the conversational. There is no distinction between experimental science for little children and the work done in the carpenter shop. Such work as they can do in physics or chemistry is not for the purpose of making technical generalizations or even arriving at abstract truths. Children simply like to do things and watch to see what will happen. But this can be taken advantage of, can be directed into ways where it gives results of value, as well as be allowed to go on at random.

And so the expressive impulse of the children, the art instinct, grows also out of the communicating and constructive instincts. It is their refinement and full manifestation. Make the construction adequate, make it full, free, and flexible, give it a social motive, something to tell, and you have a work of art.

THE CONSTRUCTIVE INTERESTS OF CHILDREN†

ERNEST BECKWITH KENT

[Instinctive manipulation.] — It may be questioned whether the purely instinctive handling of materials should be called constructive in the ordinary sense of the word. James[1] suggests a fundamentally constructive motive for even the so-called destructive acts of early childhood. Groos takes exactly the opposite view, looking at these as responses to the fighting instinct.[2] Perhaps it would be safer to call most of these efforts mere random responses to the general impulse to activity reacting in the easiest way upon the most convenient material. This we may call the *manipulative* instinct as distinguished from

* From *The School and Society*, Chapter II, "The School and the Life of the Child." University of Chicago Press, 1900. Revised edition, copyright by John Dewey, 1915.

† From Thesis for the Degree of Ph.D., Columbia University, New York. 1903.

[1] *Principles of Psychology*, Volume 2, p. 426.

[2] *Play of Man*, pp. 97–98.

either the constructive or destructive. We shall use the word manipulation for activity of this sort, while the word construction will mean work (ordinarily synthetic in nature) carried on with reference to some end other and more remote than that of the mere sensations involved in the process itself. Along with this wholly sensational pleasure of pure manipulation there is probably the beginning of an intellectual pleasure, and from this side the activity might be called experimentation as well as manipulation — the child wants to see what will happen. But this shows no such strength as the other. Groos mentions another element, "pleasure in being a cause," which he thinks appears very early and which is responsible for the way in which "moist sand is heaped up or dug away, snow tunnelled through or rolled into a great ball, sticks of wood piled, water collected in a pond, etc."[1]

As to the period of this manipulation interest: Groos suggests no dates whatever in connection with the list of activities just quoted. With Miss Milicent Shinn's niece the "era of handling things" began in the sixth month.[2] How "synthetic" or at least how "analytic" the acts of that period might be would probably depend a good deal on the materials at hand. Perez says that they appear in all children from the age of eight or ten months.[3] Probably only isolated cases will be found in which the activity is due wholly to this manipulation impulse, for the imitation factor begins to count very early. But the former persists for several years as an important factor in the child's relation to concrete materials and indeed many adults are affected by it in a degree, as is shown by their tendency to handle, modify aimlessly, and play with any new material which may be presented to them. With the adult, however, this tendency is a mere survival and cannot be strong enough to influence perceptibly his work, though perhaps it does his recreation. At what age it loses its influence on a child's more serious voluntary activities it would be difficult to say.

[**Manipulation plus imitation.**] — The "mud-pie" is perhaps the most typical representative of the transition to the imitation stage, or rather of the infusion of the imitation motive into the one preceding. Here is clearly a double pleasure in manipulation and imitation. Heretofore he has been contented to "heap and dig away" his sand, but now he adds to the pleasure of modifying a plastic material that of reproducing a household occupation. The pie is clearly not an end in itself.[4] It is demolished as soon as completed or at

[1] *Play of Man*, p. 99.

[2] *Biography of a Baby*, pp. 141–161.

[3] A child of nine months, seated on the floor, in the middle of a room, seemed like a creating and despotic deity in the midst of his playthings, and anything else that was given to him or that he could get hold of by crawling along — trumpets, drums, balls, paper, books, cakes, fruit — were piled up together, ranged side by side, separated, put back higglety-pigglety, pushed away, fetched back again, hugged, kissed, gnawed, etc., etc., and all with bursts of joy which showed his imperative need of exercising his physical powers, of satisfying an ever new curiosity, and of imitating. From *The First Three Years of Childhood*, pp. 276–77.

[4] The object has no conscious existence at the time save in the activity. The ball to the child *is* his game, the game is his ball. Dewey, *Interest in Relation to Will*, p. 16.

least set aside to make room for another and another.[1] Building with blocks is perhaps the line of work that depends most exclusively upon the imitation motive — manipulation pleasure would seem small compared with that obtained from plastic materials, and the product is still nothing. This work retains the interest for a long period, probably because of its imitative adaptiveness — because of the variety of things and activities which may be reproduced by means of blocks. . . . .

[**Manipulation toward a purpose.**] — The play-end stage comes when these very crude imitations of adult activities cease to satisfy the child. To be sure, many if not most of the plays of the whole preadolescent period are directly imitative in their method and motive.[2] But the imitation becomes more refined, detailed, and accurate, and consequently requires more highly specialized apparatus than heretofore. So the child can hardly help giving more or less attention now to making what might be called the tools of play — the things necessary to the carrying on of this more definite imitation. Play houses, toy boats, furniture and weapons, dolls, dolls' clothing, etc., are made and used in this form of play. It seems accepted that this imitation type of play holds the interest until into the eleventh or twelfth year,[3] and that it must influence constructive preferences seems evident — though how much or in just what ways we have no means of telling. But it is clearly within this period and generally in connection with these forms of play that we must look for the first real appreciation of construction as means rather than end. It seems safe to say that during this period work is occasionally done with the adult-utility motive, and that the proportion of this work increases with age up to adolescence and beyond.

[1] See Dewey, *Elementary School Record*, March, 1900, p. 49. (Monograph No. 2 of a series published by the University of Chicago Press.) Also p. 50 for suggestion as to how the realization of ends should at first be developed.

[2] Outside of school a large proportion of children's plays are simply more or less miniature and haphazard attempts at reproducing social occupations. Dewey, *ibid.*, p. 84.

[3] Johnson, George E., "An Educational Experiment," *Pedagogical Seminary*, 6: 513–522, Dec., 1899, p. 519.

Gulick, Luther, "Psychological, Pedagogical, and Religious Aspects of Group Games," *Pedagogical Seminary*, 6: 135–151, March, 1899, pp. 137–8.

VI. IMAGINATION

We find people who fear the activity of the child's imagination because it so commonly manifests itself crudely as a violation of truth or reality, and because in some form at least it is so often futile and a waste of time. Like other operations of the organism, however, imagination should be considered both for the values that it can contribute to life and for the possible dangers that it may involve. [1]

The bearing of imagination upon everyday affairs, upon the process by which the child learns and adjusts himself, and upon the play or recreational functions of free activity are brought out simply in the selections from Mrs. Gruenberg's paper. Smith and Hall's study of daydreams, of which only a portion is reproduced, lays special emphasis upon the creative aspects of imagination and upon the relief or rest which it supplies. In Groves' work we approach the relation of imagination to those adjustments which are forced upon the individual who finds his environment too difficult in general or in some special features. The substitution of phantasy for reality as a means of escape from hardship, and the resort to fancy as compensation for suffering are well brought out. There are also some practical suggestions as to the place of fairy tales and imaginary experience in the gradual transition of the individual from the infantile phantasy of indulgence to the adult use of the imagination as stimulus and as an aid in actual achievement. [2] Groves makes helpful suggestions regarding the differences between useful and injurious developments and manifestations of the imagination.

This topic illustrates clearly the important general principle that the spontaneous activities of the human spirit are in themselves neither "good" nor "bad," but have a wide range of potentialities subject to more or less control or guidance from without. [3]

The efforts of many parents to discourage the imagination probably means only that the activity of the imagination is diverted into forms that produce no outward effects that are objectionable to adults, that the child is forced to turn in upon himself — in short, to encourage the indulgence of the imagination in most undesirable ways.

[1] Compare "Self-consciousness during Puberty," section, "Relation to imagination," p. 256.

[2] See also "The danger of fairy tales," p. 150.

[3] Compare "Child's need for affection," p. 240.

WHEN YOUR CHILD IMAGINES THINGS*

Sidonie Matsner Gruenberg

[Early appearance of imagination.] — As soon as a child knows a large number of objects and persons and names he will begin to rearrange his bits of knowledge into new combinations, and in this way make a little world of his own. In this world, beasts and furniture and flowers talk and have adventures. When the dew is on the grass, "the grass is crying"; butterflies are "flying pansies"; lightning is "the sky winking," and so on. This activity of the child's mind begins at about two years, and reaches its height between the ages of four and six. But it continues through life with greater or less intensity, according to circumstances and original disposition.

[Imagination and sympathy.] — It is not only the poet and artist who need imagination, but all of us in our everyday concerns. The person to whom you like so much to talk about your affairs, because she is so sympathetic, *is sympathetic* precisely because she has imagination. For without imagination we cannot "put ourselves in the place of another," and much of the misery in the relations between human beings exists because so many of us are unable to do this. The happy cannot realize the needs of the miserable, and the miserable cannot understand why anyone should be happy — if they lack imagination.

The need for imagination, far from being confined to dreamers and persons who dwell in the clouds, is of great *practical* importance in the development of mind and character. Imagination is a direct help in learning, and in developing sympathy. As one of our great moral leaders, Felix Adler, has said, much of the selfishness of the world is due, not to actual hard-heartedness, but to lack of imaginative power.

Being able to put yourself in the place of another is of importance not only from the strictly moral point of view. This ability affects one's everyday relations, it is of great help in avoiding misunderstandings of all kinds — between mother and child, between mistress and maid, etc.

[Make-believe and identification.] — Most of us grown-ups do not appreciate how very real the child's world of make-believe is to him, and how essential to his happiness it is that we do not break into it rudely.

Many parents enter spontaneously into the spirit of their children's games, and make believe with the best of them. They pity poor Johnny when he screams with terror at the attack of the make-believe bear, and take great joy in admiring the make-believe kitten. It is the child's natural way of learning things, of getting acquainted with all living and inanimate objects in his environment. It sharpens his observation. A child who tries to "act a horse," for example, will be much more apt to notice all the different activities and habits of the horse in his various relations than would a child who merely observes passively.

* From *Your Child To-day and To-morrow*, Chapter III. J. B. Lippincott Company (1913) 1920.

[**Imagination and projection.**] — A child with imagination, when receiving directions or instructions, can picture to himself what he is expected to do, and easily translates his instructions into action. To the unimaginative child the directions given will be so many words, and he cannot carry out the instructions as effectively. Again and again teachers and parents find that children fail to carry out orders, although able, when asked, to repeat word for word the instructions given them.

[**Creative imagination.**] — The child can *be* whatever he wishes and *have* whatever he likes, his heart's desire is at his finger's end, once his imagination is free. The rocking-chair can be a great big ship, the carpet a rolling sea, and at most a suggestion is needed from the busy mother. A few chairs can be a train of cars and keep him occupied for hours. A wooden box is transformed into a mighty locomotive — in fact, give an imaginative child almost anything, a string of beads, or a piece of colored glass, and out of it his imagination will construct great happiness.

[**Imagination and play.**] — A normal child does not need elaborate toys. The only function of a toy, someone has well said, is "to serve as a lay figure upon which the child's imagination can weave and drape his fancy." Some children do not even need *objects* as a starting point for their imaginative activity. They can conjure up persons and things to serve as material for their play. Many children, when alone, have imaginary companions. In some cases the companionship lasts but a few months; but there are children whose imaginary companions grow up with them and get older as they get older. Sometimes there is a group of such companions, and their activities constitute a "continued story," of which the child is a living center, although not always the hero.

There need be no fear — except perhaps in very extreme cases — that such activity of the imagination is morbid. A little girl who plays with her dolls is really doing the same thing, only that she has a symbol for each of her imaginary companions. But although an imaginative child is much easier to teach later on, and although he does not trouble you with the incessant nagging, "What shall I do now?" the mother whose idea of good conduct is "keeping quiet" will find the unimaginative child much easier to manage. He is very much less active and therefore "less troublesome." This explains why this priceless gift of imagination has so often been discouraged by parents and teachers.

[**Imagination and reality.**] — Another reason why imagination has been suppressed by those who are in charge of children is the fear that it will lead to the formation of habits of untruthfulness. It is very hard to realize, unless you understand the child's nature, that the child is not lying when he says something that is manifestly not so to you and the other adults. Up to a certain time it is impossible for the child to distinguish between what we call *real* and his make-believe. Both are equally real to him, and the make-believe is often very much more interesting. Until about the fifth year a child does not know that he is imagining; between the ages of four and six the imaginative period is at its height, and there begins to appear a sort of undercurrent of consciousness that it is all make-believe. This heightens the pleasure of trying to make it

seem real. Gradually the child learns to distinguish between imaginary experiences and real ones, but until one is quite certain that he *does* distinguish, one must not attach any moral significance to his stories. Should an older child be inclined to tell falsehoods, one may be sure that this is *not* because his imagination has been cultivated. There are then other reasons and causes, and they must be studied on their own account.

THE PSYCHOLOGY OF DAYDREAMS*

Theodate L. Smith

[Danger in daydreaming.] — The insidious tendency of daydreaming to usurp the place of other mental activities is very generally recognized by adolescents and adults, and those who most fully recognize its value as a normal rest and relaxation of the mind, or the soil from which real creative work may spring, appreciate as well the danger that the servant may become the master and mental imagery control the mind even in opposition to an effort of will. . . .

[Mental content and spontaneity.] — The richer the content of the mind, the greater the variety and spontaneity of the daydream and the greater the possibility that from its automatic working new and original combinations may arise. A psychological study of inventors would probably reveal the fact that many of the great inventions, though sought and worked over for years, have come at last in a flash of insight through the automatic workings of a mind filled with all the possibilities of the subject. Indeed we know this to have been the case with many scientific discoveries; and the biographies of artists, authors, and scientists emphasize the fact that many of them have been daydreamers in boyhood, but always along with this has coexisted the fact of special interest and activity along some particular line, even though there were deficiencies in other directions. Herbert Spencer has recorded in his autobiography (Vol. I, pp. 85 ff.) the fact that he was, during his boyhood, "extremely prone to castle-building," and that the habit continued even into mature life. This habit, while usually indulged in at bedtime, was frequently a cause of annoying absent-mindedness. In later years he wrote: "I believe that it is a general belief that castle-building is detrimental; but I am by no means sure that this is so. In moderation I regard it as beneficial. It is a play of the constructive imagination, and without constructive imagination there can be no high achievement. I believe that the love I then had for it arose from the spontaneous activity of powers which in future life became instrumental to higher things." Many facts from the biographies of the world's leaders can be adduced in support of this opinion of Spencer's, and it may well be questioned whether too vigorous a pruning and repression of this play of the imagination is good pedagogy and whether a certain amount of this mental recreation is not necessary for mental growth. We know that music, art, and

* From *Aspects of Child Life and Education*, pp. 53–83, by G. Stanley Hall and Others. D. Appleton & Company, New York, 1921. Reprinted in abridged form from the *Pedagogical Seminary*, 15: 465–488, Oct., 1904.

literature are much indebted to the great dreamers. But the mind must first be well stored, and there must be energy for the realization of the dreams. It is never to the idle dreamer that the creative impulse comes. Mozart and Raphael were dreamers, but the harmonies of the one and the visions of the other belong to the world only because their dreams received embodiment by alliance with the drudgery of practical work. Napoleon and Mohammed were, each in his own way, dreamers, but they were also men of action. To Gautama, only after years of mental striving, came the perfect rest and the vision of Nirvana. It is probable that to most artists the vision beautiful comes when the mind is passive and visual images rise unbidden, and literature owes much to that spontaneous play of imagery which is one of the characteristic forms of daydreaming. We do not need to recall that strange fragment of Coleridge's dream, Kubla Khan, to realize that the brains of poets have sometimes worked in an automatic way. The daydream shades by almost imperceptible gradations through hypnagogic states to the dream of sleep, and as those whose mental content is fullest are those who are apt to dream most, so with the daydream. Babies and idiots probably do not daydream, as they have not a sufficient store of mental impressions for reproductive combinations. And among those whose lives are a monotonous round of toil in the bare struggle for existence there are probably few dreams either of the day or night, because little material is furnished by the environment. Experience having bred few images for the fancy to work upon, release from bodily exertion is followed almost immediately by sleep. The effect of monotonous labor in dulling mental images, even in well-stored minds, is noted by those who have spent years in Siberian prisons, even the images of home and friends being no longer recalled with clearness.

[**Source of pleasure.**] — Enjoyment of daydreaming in itself considered, except in those cases which are either morbid or tend to become so, is universal. The few who say that they do not enjoy it invariably give conscientious scruples in regard to it as the factor which disturbs enjoyment. Children occasionally give some unpleasant consequence resulting from indulgence in daydreaming as a reason for nonenjoyment, but nevertheless do not discontinue the habit. Some say that daydreaming is their greatest pleasure and that they "could not live without it." Even sad dreams are enjoyed, the sadness being of the same nature as that evoked by seeing a tragedy on the stage or reading a book which may be thoroughly pleasureable, even though the reader is reduced to tears. Emotions in daydreams of a normal type are all attuned to a low key, due, perhaps, to the relaxation of the muscular and vascular systems. The mood is generally enjoyed, and many say that it rests and helps them.

There seems to be no ground for the assumption of any morbid connection, either mental or physical, with daydreaming *per se* more than with any other mental activity.

[**Summary.**] — In summarizing the results of the present study attention is drawn to the following points:

Daydreaming appears to be a normal and well-nigh universal phenomenon

in children and adolescents and may continue throughout life. It is especially characteristic of the years of adolescence.

The content of the daydream is chiefly determined by environment, though its forms, like those of night dreams, are influenced by age, health, and degree of mental development.

In early childhood daydreams, except in the case of exceptionally imaginative children, are made up chiefly of memory images, actual experiences or stories being reproduced with little change. This tendency to reproduce memory images unchanged is evidenced not only by the daydreams reported, but is further illustrated by the insistence of children that stories told to them shall be repeated without any change in the details, a fact familiar to every one who has had experience in telling stories to children. The future of childhood is usually a definitely circumscribed and near future, and motor activities and eating figure largely in the content of childish dreams.

With the dawn of adolescence there is a marked increase in the variety and complexity of content, and the range is greatly widened. Dreams of the future are oftenest of the vague future with boundless possibilities. The instinct emotions become an evident factor, and dreams of love are characteristic at this age. Both altruistic and egoistic emotions are greatly intensified.

THE EARLY DEVELOPMENT OF IMAGINATION*

Edwin A. Kirkpatrick

[Omnipotence of infancy.] — The traditional idea of omnipotence is indicated by the phrase, "He spoke and it was so." There is no thought of means and effort, but the desire or the will produces that which has been conceived. When one considers for a moment, it is clear that to the infant's dawning consciousness needs are supplied and wishes are gratified without personal effort. As the infant becomes hungry, food is provided; if he is pricked and cries, relief is at hand. Later a bright object is seen, and at a gesture or a word it is placed in his hands. During all his time of helplessness, the child is really omnipotent. Much of what he wishes or wills comes almost instantly and without effort on his part. In sharp contrast with this are his experiences as he begins to help himself and supply his needs and desires by his own thought and effort. He must become acquainted with the world in which he lives and conform strictly to its laws or his wishes remain ungratified. The words "dress me" do not quickly result in his being properly dressed, but a very definite series of movements must be carefully made in proper order before the desired result is obtained and he is in a condition to gratify his next desires. Only gradually is the lesson learned that we live in a world where everything must be paid for by planning and effort suitable to the occasion. A lifetime of schooling

* From *Imagination and Its Place in Education*, Chapter IX, "Later Development of the imagination as Affected by Age, etc."; Chapter XIII, "The Period of Daydreams"; Chapter XIV, "Evils and Dangers of the Imagination in Children." Ginn and Company, 1920.

is sometimes not sufficient to teach this lesson fully. Even when it is learned there is relief and pleasure to be found in daydreams, in which we lapse again into our childhood condition, of wishes being gratified without the use of means.

[**Restraints of reality.**] — Is it any wonder that the child clings to this world of personal power in which wishes bring their own fulfillment? Poets always dwell much in this world, while the most original scientists and inventors find in it possibilities which later, by regulated effort, they transform into actualities. Thus all through life there is contrast and conflict between the world of fancy in which we are omnipotent and the real world where we can succeed only by almost slavish conformity to the laws of the universe of which we are a part. Yet there are at the same time reciprocal influences by which law is brought into the world of fancy on the one hand and the present and actual changed into the future and the ideal on the other. Only by proper balance of these contrasts and relations can life be made both sane and ideal. Childhood can be understood and properly nourished into usefulness and happiness only by recognizing that man begins by being omnipotent in the world of fancy while learning the laws of the real world to which he must conform in order to become really powerful and efficient. Children are thus alternately the most idealistic and the most literal of creatures, now reveling in fancies, now oppressed by realities and their own helplessness. This divine spark of freedom and of will to be and to possess must not be smothered. . . .

[**Imagination in play.**] — After children have gained the power to produce and combine images they frequently revel in a playful use of the imagination, in which things are given whatever qualities are most pleasing and brought into whatever relation is most agreeable. The child thus makes the world into what he wishes it to be at the moment, but during all his active dealing with things he is himself becoming impressed with the permanent character of the objects with which he deals. He learns something of the laws of the world in which he lives, and which he cannot change, in contrast with the imaginary kingdom over which he has almost complete control. Only as he gains knowledge of things as they are, can he direct his imaginative activity in representing desirable conditions as brought about through possible means.

[**Differentiation of fancy from reality.**] — At this stage he is generally introduced through stories and the reminiscences of elders to a distant world differing from that immediately surrounding him. He learns of strange objects and unfamiliar events governed by laws new to him. At about the same time he is also made acquainted with the realm of fairy stories, in which wishes have much the same place as in his earlier playful fancies. For a time the world revealed by accounts of distant places and times and the one presented by the fairy story are enjoyed as a pleasing contrast to the prosaic present and are not clearly differentiated from each other. Later the child distinguishes between these two realms, just as he earlier did between the realities of sense and his play fancies. He wants to know whether stories are true, that is, in accordance with the laws of the universe, or are merely creations of fancy and fairyland.

[**Vicarious experience and adventure.**] — Interest is then usually centered for several years upon history and geography, and the child learns much regarding the different parts of the earth and the succession of events leading to present-day civilization. The wish and the play elements at this time demand stories of adventure which depict a more rapid succession of exciting incidents than is supplied by daily life or ordinary geography and history study.

[**Imagination and aspiration.**] — With the dawning of adolescence, and the emergence of fresh instincts, and new social, aesthetic, and moral interests the imagination is stimulated to greater activity. At this time the wish of the fairy story has almost no place, but the most desirable of all that is possible in the real world is chosen for attainment, and the imagination, directed by what is known of the laws of reality, is exercised in representing the means of gaining such ends. In this period of idealism the wish predominates over the probable, but is not directly opposed to what is conceived as possible. The problem for the youth and the man is that of finding means of harmonizing his desires with the actual possibilities of life as presented to him, taking into account his individual capacities and opportunities. The imagination is continually exploring the future, while the reason decides as to ends and directs in the choice of means of attaining them.

[**Development of interests.**] — The period from three to six is preëminently the time in which free play of the imagination is contrasted with fixed sensory experiences of the immediate environment. From six to twelve the imagination is occupied with constructing the distant world of reality and perhaps reveling in a fairyland where wishes and fancy play a large part. From twelve to maturity is the period of adventure, romance, and idealism in which the real world is the theatre of the imagination, but the desirable is selected and action is speeded up and intensified. . . .

[**Danger in phantasy.**] — One who has little to occupy or interest him may have his character weakened by excessive indulgence in imaginative fancies unchecked by real experience or increasing knowledge of realities and unassociated with any plans for definite action. On the other hand, one who is overworked and has no energy left for new interest, may lack the opportunity for that imaginative picturing of what may be done and gained which is the chief stimulus to ambition. Fortunate is the youth who has plenty of work and something to be interested in every day of the week, but who has some leisure in which to do as he likes, and indulge in daydreams of a golden future.

[**Projection through imagination.**] — In imagination the young person may compete with others on the athletic field, in the classroom, and in the world of industry, science, art, or literature, but the imaginative anticipation of what is to be done or enjoyed in the immediate future is checked and controlled more and more by new experiences. In a similar way more remote ambitions are modified and directed by increasing knowledge of how success has been attained by others in various lines of endeavor. By means of the imagination preliminary explorations are made into the unknown, and in the light of present conditions and a knowledge of what others have done, plans

are made which, even if not carried out in detail at once or later, yet influence future life and character. The changes in objective action and the still greater changes in mental life which take place during the adolescent period are frequently very marked, and all the imaginative activity of this period doubtless modifies the future either positively or negatively, although some of it seems to reflect only passing whims. . . .

Evil results may follow the half-playful exploration by the imagination of the possible human emotions, when any one kind of mental picturing is given too much prominence and reality by association with some fundamental instinct. In childhood the danger of injury through fear is much greater for the imaginative child than for others. The pleasant thrill of fear produced by playful use of the imagination may be gradually transformed into a paralyzing horror or morbid picturing of dangers that are not imminent and that would have little influence upon a less imaginative child. One girl often suffered at night from fear of bears, though she greatly enjoyed in the daytime a modified game of hide and seek in which the bear was "It," and great ingenuity was exercised in escaping him. On the other hand, playful imagination may counteract fear, as in the case of a little girl who employed her playful imagination in making up stories to such an extent that she could go on errands in the dark without fear.

In adolescence the sex instinct is a serious source of danger to the imaginative child if his imagination gets started along wrong lines. On the other hand, the same instinct may be a powerful stimulus to the founding of moral and religious ideals, to artistic and intellectual productions, and to ambition in various forms.

PHANTASY AND SOCIAL RATIONALIZATION*

Ernest R. Groves

[Phantasy and wishing.] — The tendency to phantasy is inherent in human nature. The creative power of imagination is made use of as a means of hiding unpleasant facts from oneself. The constructions of fancy may replace the actual conditions and then they receive the reactions that belong to real things. The existing environment is replaced by an imagined one and the conduct is adjusted to the fancied circumstances. The imagination would be unable to accomplish this seeming miracle were it not that the air castles are built in accord with the desires of the dreamer and therefore have come into being as a means of escaping from the hard circumstances of reality. Fancy steps in to cater to cravings which the person despairs of satisfying by successful grappling with the real conditions. Fancy spins a cocoon and the soft, flimsy covering of phantasy comes between the dreamer and the harsh contacts of his everyday experiences.

[Phantasy and fear.] — Wherever fear has sway the tendency to phantasy is augmented. We have countless illustrations in savage life of the effect of

* From *Personality and Social Adjustment*, Chapter XVI. Longmans, Green & Co. (1923) 1924.

fear in creating the most diabolical imaginations, which once they are created are passed through the group by suggestion until they become realities to the people and from a psychological viewpoint are to be taken as seriously in understanding the environment that operates upon the thinking and acting of the natives as if they were physical forces of an adverse environment. As is commonly known, much of the religious life of primitive people is an attempt to propitiate these subjective constructions. The thinking of the people is tightly bound by the tyranny of their own terror.

[**Source of images.**] — The child's phantasies take many forms. They begin with his parents and are expressed with reference to the relations with father and mother in the everyday life of the home. As soon as the child is old enough to construct thought at all he naturally imagines himself in situations that satisfy his desires with reference to his mother or his father. The actual content of these daydreaming experiences will depend mostly upon the experiences of the child and the kind of fellowship he enjoys with his parents. He often thinks of himself as having the exclusive love of the mother, for example, perhaps in such cases building up pictures that remove from him the competition of the father. He thinks of himself as having the possessions of the father, going with the father to his work, taking part in the earning of the family's livelihood. As soon as he begins to read he uses this new resource also as a means of adding material for the process of imagination.

[**Relation to environment.**] — Naturally in such circumstances he reacts immediately to unfavorable and unpleasant experiences by removing them from his consciousness by the process of daydreaming. Every student of the child's daydream has seen that such imaginations center about the ego and are for the most part attempts to satisfy the self-regarding instincts. The child thinks of himself as not appreciated by other members of the family. Perhaps he constructs an imagery of death, since he thinks his real worth would then be recognized by all, and everyone who has injured him in the family life would be repentant and regretful.

The child also finds recompense for what he considers ill-treatment by constructing daydreams in which he puts those who have hurt him into disrepute. He has the hateful brother or sister thoroughly punished. In this way he obtains satisfaction denied him by the actual facts. He also turns to daydreaming to get possession of things he lacks. He replaces his poverty by wealth, his restrictions by freedom. The wealthy family's resources become his standard. In the same way any want of skill, any supposed defect, is reacted to by the construction of images that make possible the greatest degree of skill, the largest possible attractiveness, or whatever appeals to his inner craving.

[**Need for weaning from phantasy.**] — This tendency to imagery which is so natural to the child is detrimental to the adult because it keeps him from playing a man's part in the world. The child, therefore, has to be gradually led away from daydreaming and taught in such a way as to make it possible for him to face the actual circumstances of life and if possible to control his

circumstances in order that he may obtain his achievement by actually working out his purposes rather than merely dreaming about them.

[**Success with reality.**] — The child's development in years and knowledge should be paralleled by a similar advancement into reality and a giving up of the childish props that assist in the first feeble efforts to carry the load of life. The success of the child's education from the world of phantasy to the world of reality is measured by the closeness of his fancies to life. If the images that float through his mind are warm with close contact with the real circumstances, his emotional maturity is assured. If, on the other hand, every hard fact is reacted to by a retreat into inner consciousness where images are constructed to compensate for the harshness of factual experience, the youth is in his heart of hearts emotionally immature and his childishness is bound to prove his undoing. The harder his circumstances, the greater his retreat; the more his retreat, the less his success in dealing with life; and thus he spins around the circle until perhaps as an adult he takes refuge permanently in some nervous affliction that will relieve him from further social responsibility.

[**Learning to discriminate.**] — It follows from this that there is risk in the child's use of fairy tales. There are few children who do not joyfully read such stories and delight in constructing them. If most children are not given fairy tales in their earlier years they will make them for themselves. The wise parent from the beginning will teach the youngest child that there are two kinds of stories, one representing actual fact and one, make-believe. By allowing the child to choose which he wishes, a sense of enormous difference between the two types will be developed in his consciousness. This in itself will teach him the uselessness of looking to the fairy tale for any permanent satisfaction. It will become merely a fancy, a recreation, and as he develops he is likely to leave it behind until no story that does not suggest life will be interesting to him. Such children in the end may come to look upon the fairy story as uninteresting. This is especially true of boys, because they are given freedom to contest life in such a way as to take away from them any inclination to have recourse to phantasy for the satisfactions that ought to be attained by actual achievement. In so far as the girl's life is rational or free from repressions, the same thing occurs.

[**Mature and infantile daydreaming.**] — It must not be thought that any individual is likely to free himself altogether from tendencies to phantasy. The most mature and well-trained mind is likely in its free associations to dwell upon experiences that are egoistic and of the character of daydreams. The person finds himself thinking in terms of success not yet attained and with little thought upon the process of achievement. In so far as this leads eventually to ambition it is stimulating and inspirational. In so far as it is a mere recreational experience it relieves from fatigue and in the end incites to serious endeavor. When it becomes a chronic habit and the individual by this process obtains inner satisfactions, it degenerates into infantile daydreaming, which is altogether unwholesome and detrimental to the welfare of the person. In other words, it shows failure to grow up, and bears testimony to the inherent diffi-

culty of trying to leave behind all the magic of childhood wishes and to accept the heroic task of dealing with life as life actually is.

At the beginning of adolescence there is commonly a revival of earlier habits of daydreaming. This is in harmony with the emotional upheaval of this period and shows the desire of the child for new satisfactions and new successes, and the failure to get from actual experience much the soul hungers for. A turning to the earlier magic of thought is the natural consequence. The child spins out of consciousness his desires to dwell largely upon experiences that magnify the self and give the idea of social recognition and approval. If for any reason the child is particularly handicapped — for example, feels inferior to his associates — this turning to the daydreaming mechanism is more pronounced.

[**Identification.**] — One of the expressions of phantasy particularly common in childhood is identification. Every parent and teacher is thoroughly familiar with this tendency. Some years ago when Oliver Twist was played commonly in American cities, it was discovered by chiefs of police everywhere that the coming of the play was followed by an increase of juvenile crime. This was due to the scene in which Fagin taught the young boys gathered about him to begin a life of theft. Dickens had pictured the scene so successfully that when it was dramatized it immediately did for many boys what the author showed it doing for Oliver. This can not be thought of as merely imitation in the ordinary sense because in carrying out the behavior of Oliver the boys had an emotional satisfaction which was built upon the phantasy of identification.

The child's instinctive tendency to hero worship is the best known illustration of the human proclivity to the phantasy of identification. The child loves to have a fairy tale told again and again because, although he knows the story, as he hears it he goes through the process of identification, and this brings him an emotional satisfaction which the parent often does not at all understand. He is the prince, and in his play as well as his dreams follows out the experiences suggested as the actor acts his part in the play. This identification has its dangerous possibilities. Not only may the child act characters or rehearse episodes that are physically or morally dangerous, but also he may develop identification as a means of fleeing from real life. This type of phantasy becomes the favorite for him and undermines the strength of the personality, although the onlooker might suppose that the character was being strengthened by the idealism expressed in the make-believe. Our hospitals for the insane present many extreme forms of pathological identification. Some personage in history is chosen as a fulfillment of the inner cravings of the person and by the process of identification the patient lives in a phantastic world which makes it impossible for him to have any substantial contact with reality. It is interesting to find how numerous are the Napoleons, the Washingtons, the Lincolns, and particularly the Jehovah identifications amongst the insane.

[**Save the imagination.**] — In protecting the child against the risks of phantasy we must not make the mistake of attempting to suppress the imagination. No mental faculty is of greater social service than imagination. Nothing minis-

ters to happiness more than does vivid imagination. It is, therefore, unfortunate when any educational process decreases the original capacity of imagination in the effort to keep the child from the folly of phantasy.

The imagination shows itself even in science. The great discoveries of science have been largely the results of constructive imagination. All art is based upon a wholesome use of imagination and surely the American people need more art rather than less.

[**Imagination and phantasy.**] — A question that always arises in this connection is, "How can imagination be distinguished from phantasy?" The test is a simple one. Imagination deals with life and shows toward the world of things and persons a thoroughly sympathetic and wholesome attitude. Phantasy, on the other hand, leads away from life. It clouds the world of persons and things. In the place of things that are or have been or may be, it constructs false creations that are only emotionally attractive and appeal only to the person who is trying to shut himself away from reality. Phantasy has always the element of deceit. Ruskin somewhere says that the artificial flower can not be regarded as artistic since it deceives us and we are repelled when we come to know that we took it for what it was not. This illustrates the nature of phantasy. Its attraction is self-deception. It makes the dreamer accept subterfuges for achievement. Creative imagination provides a program for achievement. It leads to the doing of what has not been done and opens up an opportunity for originality. If interpretive imagination be distinguished from the constructive, its business is to reveal the meaning and values of human experience. Whether expressed in poetry or painting or affection it tries not to replace life but to penetrate life and portray it.

[**Need for direction.**] — The normal child usually has enough imagination; it needs only direction. To destroy it is to be cruel, for from the life is taken a source of power and a source of happiness. It must not be allowed, however, to turn toward pathological revery. The life without imagination is barren. The life with great quantities of phantasy teems with noxious weeds that give out poison which sickens the personality.

VII. PLAY

The nature of play seems in the course of the nineteenth century to have become obscured, largely through the rapid development of conditions that made the play of children a source of danger to themselves or of annoyance to their elders. On the other hand, the nature of play seems during the past fifty years to have received more intensive study and thought than were ever accorded to it before; and play has received more intelligent appreciation as a result of such study than ever came from its joyful but unconscious acceptance.

We have learned that children *must play*, if they are to develop satisfactorily, and this from a social and moral point of view no less than from a physical or intellectual point of view. This *must* means not the making of provision for their coercion or regimentation; it means merely the provision of suitable opportunities, graded for age, adjusted to sex and other personal differences, related to prevailing activities, popular interests, community resources.

The first factor in the child's health is play. The first factor in the child's education is play. The first factor in personal achievement is play. The first factor in social integration is play. The first factor in racial welfare is play. Such statements necessarily arouse doubt both because they seem to claim too much and because they violate many of our traditions, which at best conceded that play might be tolerated as harmless, if not carried to excess.

These extreme claims for the values and virtues of play mean no more, however, than to emphasize the instinctive and spontaneous in development. Play is activity motivated from within, but subject to many outward influences, taking on forms that are determined by the material and social surroundings. Through play skills are cultivated at the same time that impulses are tamed by external necessity. We must learn to look upon play as the means by which the child does normally become acquainted with himself, with his environment, with the social groups in which he lives. We need to recognize further that it is through guidance and direction that the spontaneous urge to do, to accomplish, to perform, can be made a force for better adjustment and better living; the evils of undirected spontaneity are no less serious than the evils arising from idleness and repression.

WHAT IS PLAY?*

Henry S. Curtis

Surplus energy theory. — Spencer says that if at any time the conditions of life become easier, so that an animal does not need to expend all its energy in getting a living, it uses this surplus in play, and that play is in general the expression of the energy left over after the necessities of life have been satisfied. The engine that is drawing its train between stations uses its power on the load; but when it is standing still, it soon begins to blow off steam. Play is this surplus for the boy. He has to find an escape for it, or the boiler will blow up. . . .

There can be no question but that surplus energy is a favorable condition to play. The animal or child that possesses it will play longer and harder, will feel a more insistent craving for activity than the animal or child without it; but no one to-day would accept the theory as an explanation. The child will play until he is exhausted and long after his surplus energy has been used up. The sick children in the hospitals still play upon their cots with whatever meagre play material the hospital or their imaginations may provide. Surplus energy is a favorable condition of play, but it cannot explain the form of it. . . .

Play as a method of education. — The next theory to attract general attention was the theory that was advanced by Professor Groos of Gorlitz, Germany. He held that play was an instinct that came into the world to serve the purpose of education. He says that the animal does not play because it is young, but it rather has a period of infancy in order that it may play, and in that play may be prepared for its life activities. In the lower forms of life the animal can do the first day of its existence anything that the adult animal can do, and among these lower forms there is no play. As we go up the biological scale, the conditions become more and more complex, and it becomes impossible for the animal to do without training things that life requires; and whenever that occurs in the animal series, there play comes in as the method of education. He gives many examples of this. The kitten springs upon flying leaves and rolling balls, and in that play it gets just the training that enables the adult cat to catch mice. The puppy runs after his fellow and seizes him by the back of the neck; he wrestles with him, he fights with him, and in this play he gets the training which enables the adult dog to kill his game. In the same way the little girl plays with her doll. Who shall say that this play at keeping house and caring for her baby is not as good preparation for her future life as wife and mother as the lessons in the arithmetic or the geography? The Indian boy plays at tag and hide and seek, and so he learns to catch his game. He shoots and throws at a mark, and so he learns to kill it. His play is directly preparatory to the life that is before him. . . .

* From *Education Through Play*, Chapter I, "What is Play?;" Chapter III, "Play and Training of the Intellect"; Chapter IV, "Play and the Formation of Habits and Character." The Macmillan Company (1915) 1922.

The recapitulation theory. — Dr. G. Stanley Hall has supplemented the theory of Groos by saying that all games are remnants of the earlier activities of the race that have come down to us in a somewhat modified form.[1] This is, in fact, only a statement of what "instinct" itself means, for all instincts are activities that have been practiced for unnumbered generations. . . .

[Play universal.] — In this wild life of the savage there were certain activities that were almost universal. It was necessary to pursue and capture his game, to find it while it was in hiding, to strike it down with stick or stone or to shoot it with bow and arrow. Often he had to climb trees, to vault over obstacles, or to leap across brooks. At other times he himself was the hunted, and he had to flee or to hide from the pursuer or to defend himself with such means as lay at hand. These were universal activities of savage man throughout the long days of unrecorded history, and it is these same activities that survive in the play of the child. . . .

These activities of savage man and woman form the constructive play of children at the present time. Nearly every child loves to hunt and fish, to build a camp fire and sit about it in the woods, to make snares and bows and arrows and pottery. . . .

The activities that are represented in the play of children were all carried on under an environment of nature in which primitive man lived. The nervous system and all the senses were developed under such conditions, and they respond to them as they do to nothing else. For rest and play we fall back upon earlier activities, because these have become instinctive and are done with least effort, and we seek also the environment in which these activities were developed. . . .

[Games.] — Games are a highly organized form of play, and the individual child does not inherit the game of baseball any more than he inherits the multiplication table. It took the human race a million years or so to invent the game and no boy will play this or any other game unless he is taught.

There have been two main methods whereby games have been passed on in the history of the world. One of these has been the teaching of the older children. Most of us probably cannot remember to-day the games that we played at five or six; we have forgotten the rhymes we sang; we have forgotten how we counted out and counted in, how we determined who was to be "it," and everything else in regard to these games; and yet many of them have come down for a thousand years, all the time forgotten by the adult population, transmitted by the older children to the younger children. A second method has been by the teaching of the mothers. When Froebel invented the kindergarten, he did not think we should have an entirely new set of teachers, but that the mothers should play these games with the little children. . . .

Nearly all of our games have been derived from the activities of savage man. It is to be anticipated, therefore, that they will be somewhat less interesting to girls than to boys. Girls are probably never as much interested in competitions as boys are. They do not take the same interest in running fast and

[1] See also "The Cat and the Child," p. 163.

jumping far. They always acquire the coördinations involved with greater labor and are less proficient in the end. . . .

Play and recreation. — There is a very common misunderstanding of the play of children among adults which arises from their confusing it with recreation. Recreation is relief from toil. It is intended for the rest and rebuilding of wearied muscles and nerves and spirit. It may take any form, but it is always lacking in seriousness and usually has value only in recreating the mind and body for the more serious work of life. The play of the child does not correspond to the recreation of the adult, but to the work of the adult. Play is the most serious activity in which the child engages.

The play spirit. — There is no real difference between work and play except in the spirit in which it is done. The play of the children was the work of our ancestors. It has been said that play is an activity that we carry on for its own sake without any ulterior aim. Play is its own reward. . . .

We are coming to-day to see that the best preparation for life is living; and play, representing as it does the life of the past, is much nearer to a life of business or politics or society than is the schoolroom and its studies. If we seek to train for society, it would be hard to find a better method; for play is social in its nature, and it requires friendship for its continuance. While there is rivalry, there is also comradeship as an essential element in all good play. If a boy would prepare himself for politics and affairs, where will he get a better experience than in the leadership and organization of the playground? Nearly all leaders of men have probably been trained in this way. . . .

Play and mental habit. — All educators are agreed that the chief purpose of education is the acquiring of an alertness of mind and right mental habits. The attitude of mind which is found in play is the attitude which represents the greatest efficiency in all mental effort; for in all good play there is a complete absorption in the thing at hand, entire forgetfulness of self, and that intuitive following of the spirit which leads to the largest result with the least effort. Any work done in this spirit becomes an art. The person who goes forward into mature life carrying into his work this same self-forgetfulness, this same absorption in the activity in hand, this same unconscious following of the guidance of the spirit, will be a poet, an artist, a genius; for these all are essentially grown-up children who have preserved to mature years the simplicity and spontaneity of the child. . . .

Play and idleness. — There are many people who always confuse play with idleness, although the two are almost the exact opposites of each other. The child who is working on his arithmetic lesson is using a few muscles in his fingers and a few cells in his brain, but the rest of him is idle. On the other hand, the boy who is playing baseball is using nearly every muscle in his body and nearly every cell in his brain. His emotional nature is equally active. . . .

In the past the problem of idleness has been a great problem, perhaps the greatest problem of our city children. With the shortening of the hours of labor, which is everywhere going on, it becomes a great problem of the adults as well. If increased leisure is to mean increased dissipation, it will be only a

curse. The man who has spent his day bending over a desk or inhaling the fetid air of a factory is not going home at four or five to read books or exercise in a gymnasium. It is not best for him to do so. How very much better it will be for the community if we can inspire in the children such a healthy love for sport that this leisure time will be spent in vigorous games. If it is necessary for a free country to educate its citizens in order to protect the ballot, is it not equally necessary to provide for their amusement in order to protect their morals? . . .

The child a free agent in his play. — All play is social conduct. It affects directly the happiness or unhappiness of the participants. It is just as moral or immoral as life itself. In play the child is a free agent. In the schoolroom and the home he is following the ideals of his elders, he is doing the things he is told to do. He is not acting from an inner impulse or following the leadings of his own spirit. The number of choices are few, and these are accompanied with little emotional arousement. The child is too passive in his seat in school to be able to will strongly if he wished to. Much the same things are true in the home. The child is doing the things that his parents order. It is only in his play that he is doing the things that he really wants to do and is acting from the inner law of his own being, and it is hence only in his play that he is a free agent and that his conduct is really moral. The choices of the playground are innumerable, and he has the strongest kind of incentives to carry out his decisions. We will strongly, in proportion to our desire and interest, and it is only in his play that the child has a maximum of desire and interest. The rewards are instantaneous, and the child usually has a sufficient motive for what he is about to do. . . .

Play the most perfect democracy. — On the playground there is no rich or poor, high or low. You have "to deliver the goods" if you stay on the baseball team, though your father is a millionaire. There is always an almost complete equality between those who play together. We are accustomed to speak of the public school as the bulwark of our democracy, and such no doubt it is; but the public playground is far more democratic than the school.

In the playgrounds we have a voluntary democratic organization. The team elects its own captain and obeys his orders. It is necessary for the members to subordinate themselves and take the positions in the field, even if they do wish to pitch or catch. They must obey their captain. . . .

Team play and loyalty. — The most important moral training which play gives is in the development of loyalty.

Perhaps the greatest need of every country is that its citizens shall acquire a community sense, that they shall be able to think in terms larger than those of their own individuality, and be willing to work unselfishly for the city, the country, or the organization to which they belong. In other words, that they should acquire the spirit of loyalty. Professor Royce says that loyalty is the most fundamental virtue, more elementary even than love in the moral code. A person who thinks only of himself and his own welfare is a bad citizen. A person who always conceives of himself as a member of a larger whole to which

his loyalty is due is a good citizen. How does a boy get this training? There can be no question but the easiest way to develop in a boy this community sense, this feeling of loyalty to some organization larger than himself, is through team games. But the boy who is playing a game on a vacant lot does not acquire this spirit, for the reason that the scrub team has no permanent organization, no captain, and no future. It is team only in name. There is no reason why a boy should be loyal to a ball team of which he is chosen a member for the afternoon, and which is dissolved as soon as the game is over. When, on the other hand, the boy comes into the playground, and becomes a member of a permanent team, he takes part in a series of contests with other grounds. Just so far as these contests become important to the team, all of the members are practically compelled to acquire loyalty. A boy who still seeks to play the individual game, to make the long hit or throw to attract attention to himself in playing the game, soon finds that this sort of play does not win applause. The judgment on his play is a social judgment. It is estimated by its effect on the team. He must bat out in order that the man on third may run in. He must take the undesirable position, he must practice when he wants to go fishing — in short, he must do many things that he does not wish to do in order that the team may be successful; and this spirit of loyalty, which the team creates, we call good citizenship as applied to the city, we call patriotism as applied to the country, and, if we agree with Royce, it is the most fundamental of all virtues.

PLAY AS A PREPARATION FOR LIFE WORK*

JOSEPH LEE

[Play a basic need.] — The play motive is the deepest and most serious. It is deeper than the hungers: the artist starves himself for art; the student renounces love and fortune to vindicate his vision of the truth; the artisan postpones reward to workmanship. The master of any calling cares for his work first; the pay is secondary. Policemen, firemen, nurses, doctors, engineers are every day giving their lives in obedience to a deeper instinct than the love of life. What we mean by a profession — *i.e.*, by work that is taken seriously — is the predominance in it of interest in the work itself over ulterior motives. . . .

[Play and curiosity.] — "Not in the ground of need, not in bent and painful toil, but in the deep-centered play-instinct of the world, in the joyous mood of the eternal Being, which is always young, Science has her origin and root; and her spirit, which is the spirit of genius in moments of elevation, is but a sublimated form of play, the austere and lofty analogue of the kitten playing with the entangled skein, or of the eaglet sporting with the mountain winds." So sings Professor Keyser of Columbia, a mathematician who has gone deep enough to catch the play spirit of the spheres. Of course science is play — real science,

* From *Play in Education*, Chapter I, "Play is Serious"; Chapter IX, "Play and Work"; Chapter X, "Play is Growth"; Chapter XI, "The Four Ages of Childhood"; Chapter XXXII, "Play and Drudgery." The Macmillan Company (1915) 1923.

that is to say, the science that is the true adventure of the mind. It is the play of the great instinct, curiosity — exploring the universe, learning with joy its story, as the child follows up the brook or listens to the murmur in the shell. . . .

[**Play and work.**] — Play thus includes all action in obedience to the great achieving instincts as distinguished from the hungers. It not only creates the child, but is the life also of the grown man, the active principle that sustains him and in the functioning of which he has his true expression. Work is the highest power of play. That it usually contains also the other ingredient which we call drudgery is an important fact. . . . The thing to note here is that the soul of it is the play motive. . . .

[**Stages in the play interest.**] — Play is growth under the supervision of the great achieving instincts, the chief of which are hunting, fighting, creation, rhythm, nurture, curiosity, and team play. These form the constant element in the child's life and become the warp of the resulting fabric.

But these instincts are not all equally active all the time. Everyone knows that a growing child passes through successive phases. The games that most delight him in the nursery are scornfully rejected during the succeeding period. . . .

The great play instincts, in fact, do not all appear quite at the beginning nor all at once. Some are on hand and directing the child's growth almost from the very first. Some are held back for several years; team play, the last to appear, waits till the age of eleven or thereabouts. And each instinct has its time of stress, its special vogue, during which it lays siege to the mind and makes its principal impression on the resulting growth. . . .

Childhood is thus divided into different ages, fairly well marked, each dominated by one or more instincts that color for a time the whole process of development.

First, there is the period of babyhood, from birth to about three years old, during which the child's life is largely in his relation to his mother. Then comes the dramatic age, from three to six, in which the impulse to impersonate colors almost all of his activity. Next appears the age of self-assertion, or Big Injun age, from six to eleven, dominated largely by the fighting instinct; and then the age of loyalty from eleven on. The first two ages are the same in boys and girls. In the third there is a little difference in character and some in dates. In the age of loyalty the divergence is very marked.

These ages are of course not separated by hard and fast lines. They not only shade into each other but they overlap.

But though not separated by definite boundaries, these different phases clearly enough exist and are very generally recognized.

In practical dealing with children in their play such recognition is very important. A kind of play that suits a child at the dramatic age will almost certainly disgust a Big Injun, while what is a necessity of life to the latter may be wholly uninteresting in the succeeding period. . . .

[**Direction from within.**] — Secondly, the habitual attitude of purpose, of subordination to an inner image, that play insistently prescribes, in which it

gives daily and hourly practice during all the plastic years, is the distinctively heroic attitude. The power to give yourself wholly to an end, to lose yourself in the work in hand, not to know whether you are building the house or the house is building you, whether you are carrying the ball or are merely the one in the mud at the bottom of the heap so long as the ball is pushed across the line; to fight on in the cause regardless of cost or consequence; this is the power of all others that conquers pain and makes drudgery accepted so long as it leads toward the goal.

In the training of this power of purpose, play furnishes a steady and progressive course. Like all good teachers, it begins with an easy task and gradually, as power is acquired, sets more and more difficult ones. The child's first purposes are short and readily attained. Gradually larger and more inclusive ones are prescribed and he is drilled in longer and longer stretches of the will through further postponements of fruition.

And these two attributes of play — purpose and the service of ideals — are in truth all one. Play is always purposeful in form, ideal in direction. Nature has made of her chosen method of education a continual preparation both for the sort of thing her child will have to do and for the one effective way of doing it. The moral set and attitude she teaches is that of the trained servant of ideals.

THE PLAY OF CHILDREN*

Charles W. Waddle

The relaxation theory. — Patrick, to whom all future theorists of play must acknowledge indebtedness, and whom Hall[1] declares to " have the clearest conception of any one I know of the nature of play," has recently elaborated what may perhaps be called the "relaxation theory," although this term does not adequately or quite fairly respresent it. His forceful criticisms of the earlier theories, and his concrete application of his theory to such games as baseball, football, golf, and many simpler plays and games, lead one to give serious consideration to his three propositions concerning a satisfactory theory of play:

1. That play is free, spontaneous, self-developing, and self-rewarding, and is inclusive of practically all of the child's activities and many of those of adults.
2. That child play and adult sport should be closely correlated and explained on the same principles.
3. That the play activities of both child and adult "tend to take the forms of old racial activities, involving brain tracts that are old, well-worn, and pervious."[2]

* From *An Introduction to Child Psychology*, Chapter VI; by permission of, and by arrangement with, Houghton Mifflin Company, the authorized publishers. 1918.

[1] Hall, G. S. — "Recreation and Reversion," *Pedagogical Seminary*, 22: 510–520, Dec., 1914, p. 513.

[2] Patrick, G. T. W. — "The Psychology of Play," *Pedagogical Seminary*, 21: 469–484, Sept., 1914, p. 477.

Patrick holds that the essence of work is found in the presence of sustained attention, controlled association, concentration, and analysis, together with inhibition of impulses. These are the capacities that have made for progress in civilisation, but in children they are undeveloped, in adults only partially so, and in any case the use of them is excessively and rapidly fatiguing. Energy available for play, therefore, takes the line of least resistance. The plays of children and the sports of adults take the form of those racial activities which are oldest, simplest, and most elemental, because, "the more elemental these activities have been in the history of racial development, the greater release they afford when indulged in as a relaxation from the tension of modern life." Children play, and their play takes the simple, elemental forms it does because the higher capacities involved in work are not yet developed in them. Adults engage in games and sports, or participate as interested spectators at ball games, prize-fights, horse-races, or at the theatre, because to do so gives relief, rest, and recreation from the stress and strain of work. Both play at activities which are alike elemental and primitive because such activities are natural, spontaneous, satisfying, and pleasurable. The essence of play on this theory is its recreative, regenerative, and hygienic character. . . .

What children play. — The number of statistical, observational, and questionnaire studies of play has been quite sufficient to reveal the chief play interests, their character, their variety, and the changes in them with age, sex, race, environment, season, and other factors. Not the least striking fact about plays and games is their wonderful variety. Johnson[1] lists and discusses something like five hundred and seventy-five games, which was about half of those the names and descriptions of which he collected. . . .

The values of play.— The values of play are as varied as the values of life. The physical, mental, social, moral, and religious natures all owe their debt to play. It is difficult to overestimate this debt. Play is the school of infancy and childhood without whose tutelage formal education could accomplish little. Preyer, from his intensive study of infancy, was convinced that a child learns as much in his first three or four years as in his whole university course. The time has passed when with our Puritan fathers we can look upon play as a waste of time. Rather it is the child who does not play whose time is wasted. . . .

The recuperative, diversional, and relaxational values of play have already been suggested in our discussion of Patrick's theory. If there were no other values, play would deserve a large place in the life of young and old and would find ample justification in the scheme of life. The greater the stress and strain of work, the greater the need of the relaxation which play most surely furnishes. Sorrow, depression, painful associations, and distressing circumstances are forgotten, and their detrimental effects are at least diminished by play as by nothing else. The fatigue incident to the deadening routine of many present-day occupations finds here its best antidote. Active plays and games increase the

[1] Johnson, G. E. — "Education by Plays and Games," *Pedagogical Seminary*, 3: 97–133, Oct., 1894, p. 101.

vaso-motor reactions, stir to action the healthful emotions which always accompany spontaneous activity, rid the body of the accumulated toxins generated by drudgery, and so recuperate and revitalize the body and mind. Play is an antidote to vice as well. Many a worker at narrow, circumscribed, and distasteful tasks may be saved from resort to alcohol, narcotics, drugs, and other harmful stimulants by being taught to find relaxation, diversion, and stimulation in proper physical play.

Many writers from Aristotle down have held that play furnishes catharsis of the emotions, purges both body and mind of detrimental impulses, normalizes, and sanifies. On the theory of catharsis certain strong instinctive tendencies, now no longer useful in their primitive form, require to be exercised in attenuated and modified ways until their period of nascency has passed and control of them has been attained. To illustrate, the pugnacious tendencies of boys find suitable exercise in football, boxing, and wrestling, instead of being allowed to run riot in quarrels and fights. If allowed proper opportunity to explore, collect, fish, swim, hunt, to care for and train pets, and the like, boys have less tendency to destroy or steal property, to torment animals, or commit other antisocial acts. The decided decrease in antisocial outbreaks, when ample opportunity for play is provided by public playgrounds, is one of the best arguments for the theory. Regular and suitable work, also, as Carr[1] has shown, accomplishes the same ends. Idleness, vagrancy, and unsuitable employment are the sources of many harmful responses from which work and play may give catharsis. We shall be wise if we provide merely the opportunity for legitimate outlet for childish energy; we shall be still wiser when we plan to furnish suitable catharsis for the emotions and instincts and at the same time to turn this energy to positive and constructive ends. . . .

The play responses are peculiarly valuable further, as Carr[2] has shown, due to the following facts: (1) play reactions are easier than those of work, because they involve the oldest and oftenest used centers; (2) play brings a greater amount of activity because it is easier, more pleasurable, and less fatiguing than work; (3) the intensity of response is greater because attention is undivided and spontaneous, and therefore interest keener; (4) play is a better stimulant to growth and development than work, because it meets nature's demands in a natural and timely way; (5) play is the most variable of all reactions, and thus provides constant and suitable exercise of all important physical and mental activities. For these and other reasons the child must play or he cannot become man. With Plato we can say, "education should begin with the right direction of children's sports."

[1] Carr, H. A. — *The Survival Values of Play*, in Investigations of the Department of Psychology of the University of Colorado, Vol. I, No. 2, November, 1902, p. 10.

[2] Carr, H. A. — *Idem.*, pp. 27–36.

VIII. AMBITIONS AND VOCATIONS

Ambition is a spur to effort that depends upon the capacity of the human mind to form images of unseen things. We project our dreams and wishes upon the real world of people and things and we identify ourselves with heroes and demigods. In this way we not only see things more pleasant and satisfying than they really are, but we set about making them and ourselves nearer the image of the heart's desire.

It is important for parents to guard against imposing ready-made ideals upon their children. The ideals of the child, if they are to be of any use in life, are to be *his* ideals, the outgrowths of *his* experiences and thinking, the developments of *his* personality. Moreover, our ideals must be as fluid and as expansive as life itself. It is therefore out of the question to set up any finality as the aim of the child's ambitions.

We know why most parents feel more pride and satisfaction when the child's ambition turns toward the professions or finance than when it turns toward the more violent forms of human activity. But there is really something uncanny about the child who jumps — in his mind, that is — from his building blocks to being bank president or mayor, without ever dreaming of being a motorman or jockey or conductor or hunter. Should your son declare his intention of becoming a judge, you would no doubt be sufficiently pleased to show it, and your neighbors would not be long in finding it out. But should he set his heart on becoming a miner or a bricklayer, you would probably discourage his further confidences, and take pains to hide his ambitions from all your friends.

Unless you know just what it is that is so attractive to him in the career of the judge or of the miner, you are really not in a position to do very much that is helpful. If the judge means to the child sitting on a bench and doing nothing, and living in a fine house with many attendants, the ideal is of very little moral value. If being a bricklayer means being active and procuring visible results, this ideal has great possibilities for moral development.

In any case, the young person's ideals are not to be laughed away; the sneer may do more than you intend. However unworthy the childish ambition may at first seem, it is more important to preserve the ability to dream dreams, it is more important to preserve faith in

ideals, than it is to correct values. Perhaps your child is capable of aspiring to something loftier than the career of traveling showman; but to sneer the showman out of his life is not to substitute your ideal of service — it is to discourage all attempts to look into the future, or at any rate to discourage his confidence.

The formation of ideals is a necessity not alone in the sense that it comes normally from the nature of the human organism, but also in the sense that ideals are essential for the unification or integration of the growing personality. The "tendency to projection," says Professor Tansley,[1] arises from "the mind's need of harmony, of internal harmony or self-consistency, and of harmony with the external world. . . . It is impossible to overemphasize the overmastering desire of the human mind for some kind of unification — for having a single consistent or seemingly consistent scheme which appears to include and reconcile contradictory things. The mind is aware of internal discord arising in reality from the coexistence within it of conflicting instincts, of instincts giving rise to mutually incompatible conations, and also of external barriers to their satisfaction. . . ."

There is little danger that the childish ideals will restrict the girl or boy in his development. They are rather to be looked upon as the means whereby the child acquires the habit of thinking of life's problems in terms of the ideal. And this habit is worth so much that it offsets any disadvantages that may appear for the time being.

Most of the school activities of our children tend to emphasize the ideal of successful rivalry, and disregard too much the ideal of high achievement. Dewey's philosophy would cultivate a progressive discovery of capacity and of further ambition through experience with and satisfaction from real work. It is the best that the individual can do, not the invidious contrast with others, that is to serve as guide. This does not, of course, preclude the influences of other people's ideals, conduct, approvals, for the individual cannot escape such influences.

As children become older, their ambitions will be influenced by more and more practical considerations — such as questions of income and social standing associated with each occupation; but while they may, let them dream dreams.

The native abilities of the child no doubt contribute to the formation of his ambitions and guide him in choosing his vacation or career. We all like to do what we can do easily; we all aspire to do what is most likely to bring distinction or success. There is, however, a great deal

[1] Tansley, A. G. — *The New Psychology and Its Relation to Life*, p. 157. Dodd Mead and Co. (1920) 1924.

in the notion that the individual climbs to heights on the stepping stones furnished by his failures. It is the difficult task that stimulates to effort because it challenges self-esteem. We should be prepared to find among children a deep longing for the unattainable, but we must be careful not ourselves to set for the child a vocational goal that it is impossible for him to attain. Demosthenes, conscious of his stumbling speech, overcomes the obstacles, to become known as the greatest of orators. The effort to correct a fault, to compensate for a deficiency, overreaches itself, and thus the feeling of timidity or inferiority may give both shape to ambition and the stimulus to carry it to success.[1]

CHILDREN'S IDEALS*

Sidonie Matsner Gruenberg

[Money as ideal aim.] — A study of children's plans and hopes for their future work brings out the fact that the desire to "earn money," as a motive in the choice, increases up to the age of twelve years, and then declines rapidly. This may be taken to mean that, apart from the enlarged range of interests that comes with increased experience, there is also an efflorescence of the fancy that leads to increased concern with ideal ends. This is confirmed by a comparison of the choice made by children of well-to-do families with those made by children of rather poor people. The children of the poor, in tragically large numbers, appear to accept the fact of working as a necessity of life; they accept this doggedly as a matter of course. The children of more prosperous families, on the other hand, though frequently expressing preferences for the same kinds of occupations, have their hearts set on the joy of achievement, or on the ideal of service, or on the fun of *doing*, in much larger proportions. . . .

A part of this difference is no doubt due to the fact that in many families there are traditional ideals of the obligations of privilege, which the children readily imitate; or to the fact that these children do not have to think about the necessity of earning a livelihood, and so give their attention to the enjoyments that can be derived from various kinds of activity. . . .

[Suggestibility as factor.] — Our children are so imitative that a child with marked talents will occasionally not reveal them in surroundings that lay emphasis on qualities unrelated to those talents. So many a boy with high-grade musical ability will fail to show this where music is looked down upon as something unworthy of a man. In the same way children will develop ideals in imitation of what goes on around them. Every child is likely at some time in his career to look forward to money-making as the most desirable end in life; but most normal children will pass beyond this ideal before adolescence. If, however, the atmosphere in which the child lives is one of money-getting, . . .

[1] Compare *Perversions*, p. 242.

* From *Your Child To-day and To-morrow*, Chapter XI. J. B. Lippincott Company (1913) 1920.

he is likely to allow this ideal to persist into adolescence and young manhood or womanhood. In such cases the ideal becomes fixed without indicating that the individual is "by nature" of an avaricious temperament or materialistically inclined. . . .

The child absorbs from his surroundings, from his acquaintances, and from his reading, as well as from the instruction that he receives in school or in church, materials for building a world of what *ought* to be. And in this world he himself plays a very important rôle. We must therefore make sure that the materials for ideals which are within our control shall be of the best. . . . It is true that some children, here and there, will resist many unfavorable influences, and will come out of the struggle strong and self-reliant, with faith in their own ideals and with faith in mankind; but we cannot afford to treat the developing character of the child on the theory that it needs exercise and temptation as a gymnast needs exercise and trying tasks.

High ideals in the home, and not merely good words; loyalty to ideals and a spirit of confidence in the children, are needed to give the children that confidence in themselves which they need to make them loyal to their own ideals when these are out of harmony with vulgar fashion.

IDEALS IN FAMILY LIFE*

Ernest R. Groves

[Modification of instinct.] — Self-assertion as it shows itself from time to time in the conduct of an individual is the result of early training, personal experience, education, and suggestion operating upon the basic material of the instinct. In one's self-assertive behavior may be seen all the results of contact, direct and indirect, which has had a modifying effect upon the original impulses. The result is that the individual gets so far away from the instinct itself that he does not realize that behind the ambition upon which his attention is focused is the momentum of a powerful instinctive craving. If the meaning of the struggle could be brought into consciousness, the fundamental source of desire recognized as self-preservation, then the individual would not so deeply suffer when he fails to accomplish the ends for which he strives. . . .

[Social recognition as ambition.] — Much of the competition and rivalry of modern life has for its purpose social recognition. The doctor desires to make a name for himself. The student works for the prize, the honors, the degree, not because of any sense of their utility but because from them he expects social recognition. Some work for fame, deceiving themselves into supposing that they will be long remembered. We realize, however, in our sane moments, that we cannot expect to be remembered for any great length of time. Nevertheless, the craving, driven by the deep-seated impulse for recognition, intrudes upon our consciousness and shows itself in our reveries. We wish to be

* From *Personality and Social Adjustment*, Chapters X, "The Instinct of Self-Assertion," and XII, "Self-Assertion and Family Life." Longmans, Green and Co. (1923) 1924.

remembered. We imagine ourselves remembered. We act in the spirit of one who expects to be remembered. Gifts are made, monuments built, organizations established as a result of this tremendous craving for remembrance. The impulse vitalizes our belief in immortality. It provides a motive for our ethical control. We avoid the tempting evil choice from our realization that it is out of harmony with the reputation we desire to establish for ourselves and by which we wish to be remembered. . . .

[**Ambition for social adventure.**] — We have the egoistic striving for social experience. We wish to push our self-life beyond its usual frontier. We seek the zest of tackling something new and different. We covet an opportunity to try our resources, to demonstrate ourselves, to advertise our possibilities in some novel, and perhaps to our friends unexpected, form of behavior. It is self-preservation aggressively expressing itself. We enlarge our life by extending it. Especially do those who are suffering disappointment or discontent desire the novel experience. Monotonous life, whether due to ennui or the pressure of irksome toil, leads to the craving for something new and different, some experience as yet untasted. Daydreaming clothes these desires for adventurous experience with the garments of fancy. Story-writing caters to it, as one may easily discover if he investigates the reading of those who lead pent-up lives.

[**Ambitions not static.**] — In all these strivings there is abundant opportunity for emotional conflict. For example, how easily one may feel that in some position that means much to him he is slipping from his former security. The desire for recognition may become more intense as it wins success. The emotions of ordinary friendly contacts may stir deep emotional resentment. New experience may merely sharpen the appetite for still more. Like the lover of travel one may go from experience to experience, ever seeking and never fully satisfied.

Viewed from the sociological level these conflicts result from the difficulty of bringing into sensible balance the strivings and the equipment of the person. . . . Not in the sanest life is there any hope of one final adjustment between desire and attainment. We cannot be guaranteed for a period of time like expensive watches and clocks. Our equipment is in constant flux. It ebbs and flows like the tides. If we have more we must expect of ourselves more success. If we are less in energy in comparison with a period when we had fewer competitors, if we are mentally stiffer from mere growth in age, whatever the facts that decrease our resources, we must demand less of ourselves than formerly. If, on the other hand, we have multiplied our earlier personal capital, then our operations should proportionately advance. In a matter that calls for such delicacy of judgment, such changing adaptations to external fact, such putting aside of one's own bias and the false counsel of tender-hearted friends, it is small wonder that many there are that find a sane ordering of ambition a hopeless task. There is risk in expecting too much of ourselves. There is danger and reproach in not demanding enough. Somewhere is the golden mean. To help us find it is the business of education. . . .

CHILDREN'S ATTITUDE TOWARD FUTURE OCCUPATION*

Earl Barnes

[**The aptitudes and the vocations.**] — There are certain questions touching the industrial life that lies all around and before our children which belong properly in the field of pedagogy. Some of these questions are: Have children vocational aptitudes; or, can any child be fitted by proper education for almost any calling? If children have vocational aptitudes can they be discovered? If so, how and at what age? Should the education of the schools consider these aptitudes, if they exist; or, should it in any way concern itself with the future working life of its children? . . .

As an inductive inquiry it is clear that the question is far from simple. Political needs, religious teachings, class distinctions, the traditions and habits of social life all seize on the child even before he is born and try to make him a soldier, a priest, a diplomat, a lawyer, an engineer, a butler, or a farmer. With a girl these shaping powers are still more eternally and remorselessly at work, but mainly in negative directions. Besides this, the occupations of adult life involve many considerations quite beyond the power of a child to imagine or comprehend. Hence any child we may examine is in the first place surrounded by a network of shaping influences working in the interest of organized society, and in the second place he is ignorant of a great many of the possibilities on which we want him to pass judgment. And yet the only one who can tell if a child has vocational tastes and activities that may be wisely used in his education is the child himself. If he has a native taste which is constructive, argumentative, administrative, or artistic, I believe it will sometimes shine out, even through his social environment and his ignorance, and we can find some traces of it. . . .

[**Parents and the child's ambitions.**] — It is generally said that children tend to follow their parents' occupation; but while this is probably true in a large way it does not seem to be true in details. . . . The results of one study show that less than a quarter of the American children want to take up their parents' calling. Under the conditions of modern democracy parents want their children to have a better life than they have themselves had; and this fact makes selection of a life calling more difficult than ever before. . . .

[**Child's attitude toward work.**] — There is something permanently significant in children's ambitions; and while the particular form of work actually undertaken in adult life may be and often is different from that anticipated by the child it still remains true that he has a pretty distinct feeling after he is eight or nine years old as to the general sort of work in which he will spend his life.

With girls, especially, the reasons why an occupation is desired are very hazy and indeterminate. They simply feel drawn or impelled toward a particular line of work.

* From *Studies in Education*, 2: pp. 243–258, Sept., 1902.

Country children are much more vigorously in touch with their future work than are city children.

Class distinctions, especially in England, largely determine a child's attitude toward work. Children of the higher classes live in a large free atmosphere of possibility, much more conducive to generous growth than that in which the children of the masses live.

[**Aptitudes and the school.**] — Since, then, children have vocational aptitudes, and since they can be in some measure discovered, should we recognize them in our educational work? I should say not directly in the elementary school period. The children in these schools are already too narrowly bound in by their prospective work; the children of the masses need to have their curriculum broadened rather than narrowed to any form of direct preparation for trade.

At the same time our present curriculum is a survival of mediæval and reformation ideals, and it needs some very large changes to bring it into living relations with the life of present day boys and girls. We need a new scientific industrial humanism that shall present the actual life of today in its most attractive and romantic aspects. In connection with reading lessons and composition work the children of all classes should come into contact with a great variety of the world's work. They should learn not only of the men and women who have fought our battles and made our laws, but also of those who have built our bridges and railways, established factories, perfected inventions, and opened up lines of commerce. In all these large and human ways we should recognize the fact that the children in our schools are going to spend their lives in work.

THE WISH AND CHOICE OF VOCATION*

William A. White

[**Success must meet desire.**] — The individual, in order to be successful and happy in his work, must do something that he wants to do and, other things being equal, his success and his happiness will be in direct proportion to the correspondence between his vocation and his desires.

This formula sounds somewhat more simple than it really is. As stated it would seem to indicate that if an individual were left free to choose he would choose right every time. Of course, this is not so, as everyone knows. The trouble is that there are not infrequently two opposing aspects of the individual which would choose diametrically the opposite of each other so that if either choice is made it leaves the individual at war with himself, one-half of him, as it were, arrayed against the other. It is such situations that have given rise to the false assumption that work of itself, hard work, may produce neurasthenia. What does produce neurasthenia is the waste of energy which is lost in conflict. No one becomes nervous doing what he really wants to do. In this phrase, what he really wants to do, lies the secret; for that means, not what some one

* From "Psychoanalysis and Vocational Guidance," *Psychoanalytic Review*, 10: 241–260, July, 1923.

aspect of his personality wants, but what he as a whole wants, what he wants to do as a united not a divided personality. Many a boy has studied law or medicine to please his father, and because he *wanted* to please his father, but he has failed because his instinctive drives could find no outlet by these channels. There was another aspect of his personality that wanted still more to do something else. Failure and success can perhaps be thought of in terms of the proportion of the personality that is satisfied with the occupation followed. . . .

[**Emotional compulsion in choice.**] — Whether a particular type of conduct, such as the choice of a vocation, be explained as dependent upon an emotional drive originating in the ego instinct or the sexual instinct, the mechanism can be expressed as follows: Considering the emotional state of the individual as an energy system we can explain what happens by assuming that, as a result of the lack of satisfaction of the instinctive needs of the individual, a state of tension is brought about which expresses itself psychologically as a degree of discomfort and which by finding an adequate means of expression is resolved and replaced by a state of equilibrium which is psychologically expressed by a feeling of satisfaction. The conclusion seems to be implicit that disequilibrium is essential to action, is what makes the machine go, and that the strength of the affective drive and perhaps the vocational success is in proportion to the degree of disequilibrium.

This conclusion may not be a very acceptable one but it is borne out by what we know of the lives of many at least of the great artists, scientists, statesmen, etc., and explains what we so often find, namely, that the individual not only chose his vocation because it offered him an opportunity to do what he *wanted* to do, but that the thing that he wanted to do he literally *had* to do; in fact it was not a matter of choice at all, but a matter of the sternest necessity. . . .

[**Choice must be from within.**] — Vocations cannot wisely be chosen for others. The effort to do this is pretty apt to be little more than a suggestion along the lines of our own prejudices and predilections and so can only be doomed to failure. Spontaneous choice, on the other hand, if only free from distorting factors, is bound to go right. . . . The trouble is that these distorting factors are present in such a large number of instances. . . .

Many an individual is a failure in life because he has been forced to follow an occupation for which he is not fitted and becomes a success only when that necessity is removed and can be turned in the direction of his choice.

INTELLIGENCE AND VOCATION*

Lewis M. Terman

[**Importance of vocational choice.**] — The saddest as well as perhaps the most common failures in life are due to the selection of a vocation which requires

* From *The Intelligence of School Children*, Chapter XII, "Intelligence Tests in Vocational and Educational Guidance." By permission of, and by arrangement with, Houghton Mifflin Company, the authorized publishers. 1919.

a higher grade of ability than the individual possesses. Hardly less unfortunate is the person whose too modest self-estimate lands him in an occupation that is intellectually beneath him. A mistake in either direction entails bitter disappointment, since often it is not discovered until the time for new choices has gone by.

[**Vocations and intelligence levels.**] — Mistakes of this kind can be largely prevented by intelligence tests as soon as the proper factual basis has been laid. First, however, it will be necessary to find the actual ranges of intelligence represented in the different types of vocations, and especially the lower limit of intelligence which permits reasonable success. It will also be necessary to determine for each typical vocation the level of mental ability which represents the "point of diminishing returns," in order to prevent superior ability from being wasted upon vocations which make only moderate intellectual demands. Tests in sufficient number will doubtless show that there exists for most vocations a middle range of mental ability in which the chances of success are near the maximum, that intelligence below this range becomes less and less favorable to success until a "dead line" is reached; and that ability of a higher order represents only so much sheer waste. When such standards of occupational intelligence are available, they will furnish the most important single basis for vocational and educational guidance. . . .

Limitations of vocational guidance. — It must not be supposed that vocational guidance, in the sense of determining exactly which of a thousand or more vocations a given individual should enter, is yet possible. The most important contribution which psychological tests are at present prepared to make is in the measurement of general intelligence. The special abilities which so largely influence success in the majority of vocations have not yet been satisfactorily analyzed, much less measured. The intangible factors of interest, will power, social adaptability, leadership, and personality are still less subject to exact determination, although their combined influence upon vocational success is doubtless very great. One's general ability may fit him equally for success in a dozen different vocations, and in this case the ultimate choice should depend upon practical considerations, natural interests, and various traits of personality.

Nevertheless, intelligence tests will be of great value in vocational guidance, even if they tell us nothing more than that reasonable success in a given vocation is or is not compatible with the general mental ability which an individual possesses. . . . Knowing the intelligence of the child we could select the vocations well within the range of this intelligence, and leave it to the child's natural interests and to practical considerations to make the final choice. Such a method would not eliminate the possibility of vocational failure, but it would eliminate one of its most common causes. . . .

[**General classes of vocations.**] — The tests of college students justify the conclusion that the student bodies of colleges and universities are recruited mainly from those whose intelligence is considerably above the medium for people in general. This is true to an even greater extent than

the I Q's* found would indicate, since the Stanford-Binet does not adequately measure adults of exceptionally superior ability. In all probability the large majority of college students would as children in the grammar grades have tested between 100 and 130, with a median of perhaps 115 to 120. A certain number would probably have tested between 90 and 100, but the chances are remote that a child testing much below 90 will ever be able to satisfy the requirements for college graduation. Children who test below 100 should ordinarily not be encouraged to look forward to entrance into law, medicine, the ministry, engineering, teaching, or any other profession which demands a high degree of ability in abstract or conceptual thinking. Substantial success in such professions is probably achieved only by individuals above the 115 or 120 I Q class.

VOCATIONAL GUIDANCE THROUGH WORK†

JOHN DEWEY

[Work necessary for all.] — That a certain amount of labor must be engaged in goes without saying. Human beings have to live and it requires work to supply the resources of life. Even if we insist that the interests connected with getting a living are only material and hence intrinsically lower than those connected with enjoyment of time released from labor, and even if it were admitted that there is something engrossing and insubordinate in material interests which leads them to strive to usurp the place belonging to the higher ideal interests, this would not — barring the fact of socially divided classes — lead to neglect of the kind of education which trains men for the useful pursuits. It would rather lead to scrupulous care for them, so that men were trained to be efficient in them and yet to keep them in their place. . . .

[Multiple capacities.] — We must avoid not only limitation of conception of vocation to the occupations where immediately tangible commodities are produced, but also the notion that vocations are distributed in an exclusive way, one and only one to each person. Such restricted specialism is impossible; nothing could be more absurd than to try to educate individuals with an eye to only one line of activity. In the first place, each individual has of necessity a variety of callings, in each of which he should be intelligently effective; and in the second place, any one occupation loses its meaning and becomes a routine keeping busy at something in the degree in which it is isolated from other interests. . . . There is doubtless — in general accord with the principle of habit — a tendency for every distinctive vocation to become too dominant, too

* I Q is an abbreviation for *Intelligence Quotient*, or the ratio of a child's mental age to his actual age multiplied by a hundred. Thus, a child who scores a mental age that is the same as his actual age in years is said to have an I Q of 100. A child of eight years who scores a ten-year intelligence would have an I Q of 10.8 (multiplied by 100), or 125. One who scores below his age is said to have a corresponding I Q of less than 100. See "The Use of Intelligence Test," p. 282.

† From *Democracy and Education*, Chapter XIX, "Labor and Leisure;" Chapter XXIII, "Vocational Aspects of Education." The Macmillan Company, 1916.

exclusive and absorbing in its specialized aspect. This means emphasis upon skill or technical method at the expense of meaning. Hence it is not the business of education to foster this tendency, but rather to safeguard against it, so that the scientific inquirer shall not be merely the scientist, the teacher merely the pedagog, the clergyman merely one who wears the cloth, and so on.

[Capacity fitted to social service.] — Bearing in mind the varied and connected content of the vocation, and the broad background upon which a particular calling is projected, we shall now consider education for the more distinctive activity of an individual. 1. An occupation is the only thing which balances the distinctive capacity of an individual with his social service. To find out what one is fitted to do and to secure an opportunity to do it is the key to happiness. Nothing is more tragic than failure to discover one's true business in life, or to find that one has drifted or been forced by circumstances into an uncongenial calling. A right occupation means simply that the aptitudes of a person are in adequate play, working with the minimum of friction and the maximum of satisfaction. With reference to other members of a community, this adequacy of action signifies, of course, that they are getting the best service the person can render. . . .

[Occupation motivates effort.] — 2. An occupation is a continuous activity having a purpose. Education *through* occupations consequently combines within itself more of the factors conducive to learning than any other method. It calls instincts and habits into play; it is a foe to passive receptivity. It has an end in view; results are to be accomplished. Hence it appeals to thought; it demands that an idea of an end be steadily maintained, so that activity cannot be either routine or capricious. Since the movement or activity must be progressive, leading from one stage to another, observation and ingenuity are required at each stage to overcome obstacles and to discover and readapt means of execution. . . .

[Learning through doing.] — 3. The only adequate training *for* occupations is training *through* occupations. The principle that the educative process is its own end, and that the only sufficient preparation for later responsibilities comes by making the most of immediately present life, applies in full force to the vocational phases of education. The dominant vocation of all human beings at all times is living — intellectual and moral growth. In childhood and youth, with their relative freedom from economic stress, this fact is naked and unconcealed. To predetermine some future occupation for which education is to be a strict preparation is to injure the possibilities of present development and thereby reduce the adequacy of preparation for a future right employment. . . .

[Discovery of capacity should be progressive.] — The only alternative is that all the earlier preparation for vocations be indirect rather than direct; namely, through engaging in those active occupations which are indicated by the needs and interests of the pupil at the time. Only in this way can there be on the part of the educator and of the one educated a genuine discovery of personal aptitudes so that the proper choice of a specialized pursuit in later life may be indicated. Moreover, the discovery of capacity and aptitude will be a constant

process as long as growth continues. It is a conventional and arbitrary view which assumes that discovery of the work to be chosen for adult life is made once for all at some particular date. One has discovered in himself, say, an interest, intellectual and social, in the things which have to do with engineering and has decided to make that his calling. At most, this only blocks out in outline the field in which further growth is to be directed. . . . When educators conceive vocational guidance as something which leads up to a definitive, irretrievable, and complete choice, both education and the chosen vocation are likely to be rigid, hampering further growth. In so far, the calling chosen will be such as to leave the person concerned in a permanently subordinate position, executing the intelligence of others who have a calling which permits more flexible play and readjustment. And while ordinary usages of language may not justify terming a flexible attitude of readjustment a choice of a new and further calling, it is such in effect. If even adults have to be on the lookout to see that their calling does not shut down on them and fossilize them, educators must certainly be careful that the vocational preparation of youth is such as to engage them in a continuous reorganization of aims and methods.

IX. RIVALRY AND COMPETITION

Rivalry may be used as a motive to get children interested in trying out various kinds of activities; but we must guard against pushing the rivalry too far, not merely because there is danger of overstimulating, but especially because there is danger of defeating our purpose, which is to bring to the child a succession of satisfying experiences that will enable his self-esteem to grow properly. Professor Burnham points out that we cannot all be first; and if only the superlative can be successful the majority is foredoomed to failure. Conversely, the habit of being first, because of the restricted range of rivalries, makes success too easy and develops complacency and unwholesome attitudes toward others. It is no better to have people hate others because of contempt for their failure than to hate them because of envy for their success.

Competitive experiences in childhood should be graded and varied. They must be varied so as to give every child an opportunity to succeed as well as to fail. He must succeed for the well understood reasons made clear in recent years by the studies in mental hygiene; and he must fail so as to develop a wholesome respect for the abilities and worthiness of others, in skills and activities that he has experienced or attempted.

The competitive activities must be graded to protect the child against the fixation of his interests and pursuits and values at a childish level. It is only too easy to go on repeating an earlier success, to rest on one's laurels. It is too easy also to remain satisfied with the kind of relationship that is vital in childhood but later of no significance, or even undesirable. Satisfaction with competitive achievement should be gradually transferred from personal rivalry to group rivalry, with its demand for subordination, for self-control, for coöperation, for admiration and for loyalty. And it should be transferred to activities in which the individual performs his social function and gets his lasting satisfaction without emphasis upon the invidious aspect.

Manifestations of jealousy have been observed in children as young as twelve to fifteen months. Such manifestations are not commonly alarming; they are amusing, rather, and therefore not often taken seriously by adults. They are nevertheless sources of many difficulties in adjustment to others and should not be encouraged in any way.

Jealousy in infancy is closely related to the feeling of resentment in the presence of favors shown to others, which also appears very early and is generally recognized to have dangerous possibilities. Parents sometimes make use of this feeling, as when they induce a child to do something, for example, to take food, by threatening to bestow food or some other favor upon a rival. Such procedure may result in attaching too lasting a hostility to the other child, or in prolonging an infantile type of motive.

The essential feature of jealousy seems to lie in the disparagement which the child is capable of reading into any comparison whatever that may be made between him and some other person. Indeed, it is to be feared that a very large proportion of all individuals carry over into adult life this tendency to interpret every comparison invidiously and with a personal reference. The practical bearing of this tendency shows itself constructively in the stimulus to effort: if I am not running as fast as Tom, I must try harder; if I am not as big, I shall eat more. The child must be noticed, favorably if possible, but noticed at any cost. He feels disparaged if favorable notice is directed to another; his self-esteem is enhanced if such favorable notice as he receives comes in the presence of a potential rival.

Habits of jealousy if allowed to continue into later years are sources of difficulty in many ways. They obstruct intercourse with others in social and occupational relationships, and often stand in the way of objectivity and the formation of impersonal judgments. "Professional jealousies" are notorious handicaps to many men and women of more than average ability, who should normally attain to high levels of achievement through properly sublimated rivalry.[1]

RESENTMENT AND JEALOUSY*

MICHAEL VINCENT O'SHEA

[Beginnings of jealousy.] — Children as early as the fifteenth month show marked displeasure when other children are favored in their presence above themselves, or even receive attention or gifts from those upon whom they are dependent for their own favors. A child who has satisfied himself with his bottle, say, will be likely to show resentment if what he leaves is offered to a brother or sister. It is a common device of mothers to induce their children to eat against their desires by threatening to give their food to others. A child

[1] See also p. 113, "Sublimation of Fighting" and p. 141, "Caste Feeling."

* From *Social Development and Education*, Chapter VII, "Resentment"; by permission of, and by arrangement with, Houghton Mifflin Co., the authorized publishers. 1909.

will often consume his food himself, even though he does not enjoy it, rather than see another gain pleasure from it. It is in a way a dog-in-the-manger attitude, which is strikingly revealed when the child protests against a rival receiving any kindness from a parent or guardian or playfellow. Here is a common nursery experience: A child of fifteen months is playing happily with his blocks on the floor. Near by is his mother and his brother, still a baby, and the former takes the latter on her knee. The chances are that the child on the floor will leave his playthings, and, if he can, drive off the brother, and climb into the mother's lap himself.

In many of his relations with his associates, the child shows in various ways that he does not enjoy their success and good fortune, even though these do not directly deprive him of any pleasure. Of course, this attitude must be largely instinctive at the outset; it is assumed long before the child's own experience could have developed it in him. . . .

[**Competition.**] — As the child develops, the attitude of jealousy is assumed only toward those with whom he is frequently in competition and in conflict. By the fifth year children (boys especially) are very keen in noting any favors extended to their competitors, and jealousy is ever ready to be expressed upon the slightest provocation. Parents must exercise great care in selecting presents, say, for their children from the third or fourth year on through adolescence, lest those given to one child may appear to another to be more desirable than those he himself received. Parents often feel compelled, in order to preserve the peace in their households, to secure precisely the same articles for all their children, whether or not they are appropriate in every instance. The jealous child cannot be "reasoned with"; his passion renders him immune to argument which seeks to justify apparent discrimination when he thinks his rival may be the gainer thereby.

[**Related to esteem of the self.**] — The jealous attitude is manifested most strikingly in children from the fifth year on in situations where competitors seek to exalt themselves in the eyes of those who have favors to distribute, or where the deeds and virtues of rivals are extolled by outsiders. Let K. begin to describe in the family circle some courageous or faithful deed he has performed, or painful experience he has endured, or duties he has discharged, and C., his natural rival, will at once seek to minimize the importance of the particular act for which praise is sought, so that K. may not be too highly thought of. Then C. will endeavor to attract attention to his own worth by describing more meritorious deeds which he has himself performed. He cannot easily submit to the attempts of his rival to gain the admiration of the company before whom he wishes to exhibit himself. But it is different in situations where K. and C. are united in their interests, in opposition to other groups. Then C. is glad to reënforce the testimony of K. regarding his valorous deeds; and the principle works in just the same way when C. is seeking for favor, and K. is the jealous witness or the faithful comrade.

[**Relativity.**] — It must be impressed that jealousy is an attitude assumed only by individuals in those situations in which they are competing for the

same favors. Two children may be intensely jealous in their own homes but they may abandon this attitude absolutely when they go into the world and compete as a unit with other groups. Normally, the jealousies between members of a family tend to disappear in the measure that their interests broaden, and they form new connections in the world. That is to say, according as persons cease to be keen rivals, they tend either to become indifferent to the successes of one another, or they may even rejoice in the good fortune of each other, and lose no opportunity to celebrate one another's virtues and merits. This latter stage is not reached, however, until rivalry, and so conflict, wholly ceases, and the contestants come to appreciate that their interests are mutual, and each can help himself best by extolling the other. This is frequently seen in adult life, especially in political and professional partnerships; men who to-day may be reviling one another, seeking to injure each other's reputation, may praise one another to-morrow, when they discover that they can promote their own interests best by coöperation instead of by jealous competition. . . .

[**Levels of value.**] — One may observe the jealous attitude expressing itself sometimes among eighth-grade pupils in the effort of the less fortunate ones to explain the excellence of their brighter associates. The fourth-grader normally does not attempt to explain the superiority of his classmates; he does not seem to appreciate the necessity of doing so. But the older pupils begin to feel the social value of intellectual distinction, and they strive more or less unconsciously to belittle the achievements of those who head the lists. This becomes more marked the higher one goes in the schools. It is probably the keenest of all in the college, where the more industrious and docile members of the group are often ridiculed and caricatured in the attempt of the crowd to suppress them and keep them from manifesting their obnoxious qualities. Of course, if a brilliant and well-behaved student is also excellent in general college activities, he will be likely to win the admiration and applause of the multitude; but it is not because of his ethical and intellectual superiority, but rather because of his good-fellowship that he avoids the condemnation of his jealous associates. . . .

[**Coöperation in group education.**] — In human society the individual puts forth his strength and uses his wits to "get to the top" in all that this implies of material, moral, and intellectual superiority. But we are coming to see that coöperation will probably turn out better for society as a whole than will unrestrained competition; and yet human beings have all been constructed on the competitive principle, and effort is still with most of us, certainly with most normal children, dependent directly upon the spirit of rivalry. Take a boy of ten, say, and extract out of his impulses everything of the nature of rivalry, and he would become a flabby, inert, and static individual. Practically all of the boy's spontaneous life is competitive. When he has no companion to compete with he tries to excel himself, as it were to jump higher than he has ever jumped before, or to run faster, or to shoot straighter, or to yell louder.

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EMULATION IN PLAY*

W. B. Drummond

[Stimulus to effort.] — The spirit of emulation is evidently innate in boyhood, and is fostered by many of the most attractive games which stimulate each boy to do his best, to develop to the highest possible point his strength, his swiftness, his accuracy of hand and eye, his skill in doing difficult things. This aspect of boys' games is worthy of consideration by teachers who desire to banish the spirit of emulation entirely from the classroom. The boy who does not care whether or not he can be beaten will make neither a good athlete nor a good scholar.

[Group loyalties and rivalries.] — The third play period is the most important of all, because we find now appearing some of the most important of the human impulses. It extends from about the twelfth year, and is characterized by those games which appeal to the social instincts and develop the social spirit. The chief characteristic of the games of this period is that they are played in teams or groups, in which each individual player must play, not for himself, but for his team. Games of this description appeal especially to members of the Anglo-Saxon race. Many of the lower and less energetic races have no corresponding games at all. I need scarcely add that no animals indulge in games of this kind. The principal games in this group are football, cricket, hockey, baseball, and lacrosse.

If play is of such great importance as a preparation for later life, it should be apparent that the games which children play and the conditions and rules under which they play them are worthy of serious attention.

UNFAVORABLE RESULTS OF COMPETITION AND JEALOUSY†

Amy Eliza Tanner

Overworry, not overwork. — The claim is made by many observant parents and teachers that the undeniably bad nervous condition of many children is not so much due to the amount that they are expected to learn as to the conditions under which they work. These bad conditions may be either physical or mental. Under mental conditions must be included such things as fear — fear of the teacher's displeasure and of not passing examinations — and rivalries — the intense desire for good marks, the consequent worry over inability to prepare a lesson, and the intense chagrin at failures in recitation or examination. Such conditions are thoroughly artificial and the combined efforts of teachers and parents should be directed toward removing them. Children should feel that they are in school primarily to learn, not to show off, and that a confession of ignorance after an honest attempt to get knowledge is not a disgrace. A

* From *An Introduction to Child-Study*, Chapter XII, "The Instincts of Children." London — Edward Arnold & Co; New York — Longmans, Green & Co. 1907.

† From *The Child*, Chapter IV, "Defects of Sight, Hearing, and the Nervous System"; Chapter XIII "Feelings and Emotions." Copyright, The Rand McNally Co. (1904) 1915.

give and take among the pupils in helping each other can also be established in any school and family, to replace the rivalries and fears of the other system and to remove one of the great sources of worry. . . .

[**Inhibiting effects of jealousy.**] — Whether jealousy has any value, and if so how it should be treated, are difficult problems on account of the great intensity and complexity of the feeling. Sutherland believes that family life will never be kept up to its highest level without a certain amount of sexual jealousy, which both develops and preserves conjugal fidelity and monogamy. On the other hand, the danger in the instinct appears in all sorts of examples in which the sex factor does not appear. Many distinguished men find it psychologically impossible for them to praise or to assist another distinguished man in their own line of work. The backbiting among those in any given profession is notorious, and is by no means limited to persons who have themselves injured or slighted the backbiter. The young doctor or lawyer just beginning practice must fight not only indifference on the part of possible patients but hostility from those in his own line. Any slight preëminence, by that fact alone, brings a certain amount of jealousy of the capable person, with the allied unfriendly actions.

[**Dangers in jealousy.**] — Again, the effect of jealousy both upon the subject and the object seems to be bad in many cases. Out of one hundred and twenty testimonies given to Gesell, seventy-six say they feel humiliated and shamed by an attack of jealousy, and only a few testify to the good resulting from their attempt to overcome the passion. Out of two hundred and four persons testifying as to their attitude toward a person jealous of them, seventy-nine felt kindness or pity, but only twenty-three did anything to allay the jealousy. The others, in about equal proportions, shunned the person, felt dislike or contempt, pride or triumph. Thirty-two tried to aggravate and torment the jealous person.

[**Need for sublimating jealousy.**] — Altogether, even though we admit that jealousy, to some degree, is almost inevitable in the life of every person, it seems probable that it is naturally so intense that little but harm can come from rousing it in its more primitive forms, and that even in the higher forms of rivalry and emulation great caution must be used. If the child's and youth's mind can be fixed on raising himself to the desired level, the worst effect will be escaped, though even here he may feel unworthy pangs when a rival succeeds; but if his energies are directed to keeping others below himself, there is no limit to the depths to which he may sink.

RIVALRY*

Naomi Norsworthy and Mary Theodora Whitley

[**Rivalry related to early impulses and desires.**] — It is probable that as a matter of original nature, apart from learning, the impulse of rivalry shows itself only in connection with activities which are in themselves instinctive.

* From *The Psychology of Childhood*, Chapter IV, "The Social Instincts." Copyright, The Macmillan Company (1918) 1924.

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Man, hunting or collecting or reaching out for things or trying to win approval, works more energetically when fellow creatures are doing the same things, and feels keener satisfaction at success or keener disappointment at failure than when he works alone. Though this is the crude foundation upon which experience builds all the later habits of rivalry, it still remains true, however, that it is much easier to appeal to the interest in surpassing others in such things as sports and games, than in situations when the quality concerned is moral or intellectual. To use the instinct of rivalry in the gymnasium to get a boy to lengthen his jump is easy, but to use it in making a boy more studious or more truthful is very much more difficult.

[**Dynamic value of jealousy.**] — The strength of the crude instinct is shown by the power it has gained in its modified forms in all departments of life. It is competition which speeds up the wheels in the business world. . . . The attitude which controls men to-day everywhere in the endeavor to outdo the next man in business, to make appearance, to have a better house, even to have children surpassing his — this motive is the controlling one in the lives of the majority of men and women. It appears in art and literature. Even the churches are not free from it: to send more money to missions, to have a larger congregation, to have more people join the church during a year is a positive satisfaction.

Danger of overdevelopment. — The dangers from such an attitude can be readily seen; it is working in opposition to kindliness and sympathy, and is often antagonistic to coöperation. Yet the instinct of rivalry is a force of tremendous power, — a force necessary in such a complex civilization as ours to make for the best development, to weed out the useless, and crown individual effort and ability with success. This end is the ideal, and it cannot be attained unless educators frankly recognize this part of the child's original equipment, realizing its value while facing at the same time the dangers of its misuse. To train a child so that the motive of rivalry will work in the higher fields of intellect and character instead of only in the field of the physical and material, is well worth while. So to train him that individual competition becomes group competition is to train for unselfishness. When the group concerned is not merely his "gang," but a larger group composed not only of friends but also of strangers, all of whom are working for a common end against another similarly constituted group, much has been done towards developing a social consciousness. But the child must be met at the level of his development. To overemphasize group work and group competition in the kindergarten and early primary grades when individual competition is so strong is contrary to the nature of the child. On the other hand, to give little or no group work in the upper primary and grammar grades at a time when the gang spirit is developing, and therefore when group competition could easily be appealed to, is wasteful. The process must be progression, from individual to group, from lower levels to higher; but the start must be made with the crude form and not at some stage far in advance. This tendency, like all the others discussed, is in the child to be used and modified, not just to be accepted, nor to be ignored.

SELF-ASSERTION*

ROBERT S. WOODWORTH

[**Social aspect of self-assertion.**] — Rivalry and emulation, sometimes accorded a separate place in a list of the instincts, seem well enough provided for under the general head of self-assertion. They belong on the social side of assertive behavior, *i.e.*, they are responses to other people and aim at the domination of other people or against being dominated by them. But the struggle for mastery, in rivalry, does not take the form of a direct personal encounter. Compare wrestling with a contest in throwing the hammer. In wrestling the mastery impulse finds a direct outlet in subduing the opponent, while in throwing the hammer each contestant tries to beat the other indirectly, by surpassing him in a certain performance. This you would call rivalry, but wrestling is scarcely rivalry, because the struggle for mastery is so direct. Rivalry may seek to demonstrate superiority in some performance, or to win the favor of some person or social group, as in the case of rivals in love.

When we speak of "emulation," we have in mind the sort of behavior observed when one child says, "See what I can do!" and the other counters with, "Pooh! I can do that, too." Or, the first child wins applause by some performance, and we then notice the second child attempting the same. It is a case of resisting the indirect domination of another, by not letting him surpass us in performance or in social recognition. . . .

[**Competition in games.**] — Competition, one form of self-assertion, is utilized in a tremendous number of games and sports. Either the players compete as individuals, or they "choose sides" and compete as teams. No one can deny that the joy of winning is the high light in the satisfaction of play. Yet it is not the whole thing, for the game may have been worth while, even if you lose. Provided you can say, "Though I did not win, I played a good game," you have the satisfaction of having done well, which is the mastery satisfaction in its noncompetitive form. . . .

[**Increases exertion.**] — You cannot do so well when you simply "do your best," as when you set out to reach a certain level, high enough to tax your powers without being quite out of reach. You cannot jump so high in the empty air as you can to clear a bar; and, to secure your very best endeavor, the bar must not be so low that you can clear it easily, nor so high that you cannot clear it at all.

The goal should be heartily adopted as *your* goal, which is to say that the self-assertive motive should be harnessed into service. The importance of this motive in securing action is seen in the strong effect of competition to arouse great activity. The runner cannot make as good speed when running "against time" as when competing directly, neck to neck, with other runners. Hence, to get full action from yourself, find worthy competitors. And for the same

* From *Psychology: A Study of Mental Life*, Chapter VIII, "Inventory of Human Instincts and Primary Emotions"; Chapter XIX, "Imagination"; Chapter XX, "Will." Henry Holt & Co. 1921.

reason, accept responsibility. This puts you on your mettle. To shun competition and responsibility is characteristic of abulia.[1]

SUCCESS AND FAILURE*

WILLIAM H. BURNHAM

[**Discouragement and depression result from sense of failure.**] — Many children acquire the feeling that they are inferior to others and not capable of doing what others can do. This may come from physical defect or mental disorder or unfortunate training. Every psychiatrist knows how serious it may be and can give plenty of illustrations. . . . Naturally, if a child finds he is different in some respects from other children, especially if he finds that he is unable to do certain things that other children perform easily, he soon becomes especially conscious of this deficiency, thinks about it, worries over it, and finally, perhaps, exaggerates it until the mental inhibition that results becomes more serious than the physical defect itself. Much the same may be true of any mental defect as soon as a child becomes conscious of it. . . .

[**Home and school conditions contribute to failure.**] — Apart from physical and mental defect, perhaps the most common cause is continued failure on account of unfortunate home and school conditions. In a sensitive child the resulting inhibitions may be serious. And when, as not infrequently happens, physical or mental defect, extreme sensitiveness, and experience of failure are all combined, the result may be disastrous. . . . Both statistics and observation show that in the ordinary school the experience of failure is common and an enormous number of children are retarded. Now this is not a mere matter of formal education; but success is one of the simple conditions of mental health, largely neglected, probably because it is so commonplace and so familiar to everybody. In the healthful development of the child and in the efficient activity of the mature individual, this, and to a limited extent, failure also, are health conditions of fundamental importance. . . .

[**Stimulating effects of success.**] — The essential psychology of success is the same, whether we study the baby in his cradle, or the artist in his studio, namely, the matching of a mental image with reality. The mental state is often complicated by the zest of the activity, by feelings of power, and the like; but the essential psychological factor is this matching of the image with reality, or, if you prefer, the objectification and realization of a mental aim or end.

It is a great day in the life of a boy or girl when the first conscious effort for a definite end is distinctly made. Many a person can recall the time when first it dawned upon consciousness that a definite success in a certain line of work was possible. Many of you can recall the day when you first realized that you really could do some school task, or the like, distinctly well. The stimulus of it made you work perhaps as you never had before.

[1] *Abulia*, an extreme or abnormal degree of lack of zest for action; literally, "without will."

* From *The Normal Mind*, Chapter XV, "Success and Failure as Conditions of Mental Health." D. Appleton & Co., New York. 1924.

[**Success essential to normal development.**] — From continued success through many years an attitude of confidence is developed. On this largely morale depends, and in many cases a single marked success goes far to produce it. This stimulus of success is an essential condition of normal development and mental health. Continued failure, on the other hand, is liable to develop an unsocial attitude, the shut-in personality, and to plant the seeds, perhaps, of mental disorder. . . .

Prizes for the best. — The prevalent custom of offering prizes for the best work in different subjects, and the like, gives the opportunity for one or two to succeed, but all the rest must necessarily fail. It would be far better to offer a reward for all who succeed in reaching a certain standard of excellence. Just as in some of the best summer camps, instead of a prize for the best, every boy who can swim a certain distance, or do a certain amount of work, receives a badge of honor. Honest effort should be rewarded, whether a child stands first or last. . . .

The need of success as a wholesome stimulus is universal. Children have an enormous appetite for it. They need large doses. Adults become depressed without it. It is vital for the normal. The diseased are often cured by it. The modern method in the best hospitals of giving the patient as far as possible interesting work, something worth while to do, has demonstrated its value for health. It is the gravest error for physicians, social workers, and teachers not to employ this wholesome stimulus.

[**Special importance in children.**] — Every adult knows to a greater or less extent the humiliation and chagrin of failure. Most persons are able to meet its disintegrating effect by the experience or memory of a long series of successes and an attitude of confidence that the next time, or ultimately, one will succeed, however serious the failure of the present. In cases of children, however, the disintegrating effect is liable to be more serious. The tragedy of retardation and failure in the schools would make an appalling chapter in the history of practical education and the literature of mental hygiene.

Defense mechanisms. — As soon as a child has a continued experience of failure in school work, or even a single experience of extreme failure, at once the child either gives up in despair, or, what is more common, attempts to develop some defensive mechanism. The most common and general defense is to put the blame on some one else. The lessons were too hard, the examination unfair, the teacher unjust, or perhaps the father or some member of the family, or even some companion, may have "queered" the pupil so that he could not succeed, or some one was to blame. It is the American method of "passing the buck."

Another defense, although not as common as that of placing the responsibility on others, is physical defect or illness. Placed in an intolerable situation, with no good chance for casting the responsibility on some one else, the child is forced to resort to some physical disorder, a toothache or headache or indigestion, or, in some cases, even a neurosis. Some defense or other of this kind is necessary to defend the personality and save the individual from the disintegration that inevitably results from failure.

[**Responsibility of the school.**] — The teacher's business is to see to it that every child at some time, in some way, in some subject, achieves a marked success, and that sometimes they get an honest gauge of themselves by failure. In like manner, the task for the physician in large part is to give the patient the opportunity to do something that seems worth while, a definite concrete task to perform, either in caring for his own health, or in doing something that indirectly will be a benefit to health. The business of the social worker also in large part is to give concrete tasks to those who are chronic failures, to give the opportunity for success so that the stimulus of success may be a help to further activities. . . .

X. FIGHTING

The fights and quarrels of children are often distressing to adults, because they are so noisy or so painful or — so childish. We are accordingly tempted very often to interpose either as peacemakers or merely as dispensers of a higher force. That is to say, the use by children of such force as they have displeases us, and we stop them by the use of our greater force. If we ask ourselves, however, what we should prefer to have children do in those situations that lead to fighting, we are unable to say. We do not want the aggressor always to have his way because he meets with no resistance; nor do we wish the weaker child to take unjust advantage of his weakness.

Fighting is objectionable because it involves the danger of physical injury, which grows with advancing years, and because it involves the danger of fixing values and habits of adjustment on what is, after all, a primitive level of life. Like other complex systems of responding to external pressure, the fighting impulse lends itself to a progressive refinement and sublimation, so that we need not incur the risks or assume the difficulties of rigorous repression. We need not think of fighting as bad in itself, nor need we ignore it as something that will take care of itself because it is "natural."

Children need to be instructed not so much regarding the folly or even the futility of fighting, as regarding values that justify fighting. It is childish to fight about trivialities. We must learn to be less sensitive about little vanities that do not matter; we must not cultivate pet corns. On the other hand, we must become increasingly sensitive in matters that affect the honor of the family or the nation, the rights of the weak, the welfare of the race.

With growing appreciation for higher values should go advancement in the methods of combat. The fisticuff and the duello do not fit into the conflict against such abstractions as injustice, ignorance, poverty, disease.

The spiritual values of the soldier's ideals have always been recognized; and they have always been praised in justification of the degradations and devastations of war. Deeper studies into the nature of the developing human personality show us that we can attain the higher virtues only by transcending the cruder manifestations of anger aroused

by personal offense or injury, and by developing a technic for overcoming sources of offense or injury to the whole group or at any rate to *others*. We have to fight sometimes, if only to preserve our self-respect; but we may learn to choose our own war aims as well as the field of combat and our weapons.

In recent times great progress has been made through schools and through other organizations, such as the Scouts, summer camps, and recreational groups, in the direction of organized activities that utilize fighting interests and soldierly virtues for constructive educational ends. We are in the way of finding what William James called "moral equivalents of war."

FOR 'TIS THEIR NATURE TO*

ERNEST HAMLIN ABBOTT

[**Interference in children's quarrels.**] — In the case of quarrels among children, several questions have to be considered. One question has precedence of all others: Shall I intefere or not? To decide that question in the negative is to eliminate all the others. That it is necessary to do this, the conjunction of a quarrel and a luncheon party may demonstrate. The critical time comes when there is no luncheon party. To allow children some chance to settle their own differences is as certainly an act of discipline as it is to settle every difference for them. It is none the less discipline for the children because it seems to be chiefly self-discipline. A younger sister once had a grievance; she made her protest with a strident whine. Annoyed by the outburst, her mother descended upon the whole crew, wormed out the merits of the case, and with an even hand apportioned among the offenders penalty or reproof. Having profited, as it happened, by this occurrence, the small girl, the next time she wished to gain an advantage over the others, resorted to the same whining outcry. Immediately the three older children fell to playing church. With a loud and discordant hymn, they designed to drown the sound of protest. Though at this time in the right, they preferred not to take the risk. Already well trained by her children, that mother was quick to remain where she was. It sometimes requires alertness to do nothing. Just though her interference had been, she saw that it not only had encouraged in one child an annoying mode of complaint, but also had suggested to the others a noisy mode of averting judgment. Thereafter it seemed easier for her to hesitate before participating in her children's controversies. How can children experiment with the principles with which their elders have tried to endow them, except upon those occasions when those didactic elders do not interfere? How, on the other hand, can those same elders see what effect their precepts have had, unless the children can begin a quarrel on the chance that they may end it themselves? Deliberately to deter-

* From *On the Training of Parents*, Chapter V. By permission of, and by arrangement with, Houghton Mifflin Company, the authorized publishers. 1908.

mine not to interfere in a children's quarrel comes not of grace but of labor. Any one can lapse into indifference as to the merits of a dispute between two youngsters, but only one who has come through affliction to self-control can at the same time maintain an acute interest in the triumph of the just cause and keep his hands off. . . .

[**Purposes and methods of interference.**] — Occasions which demand interference, however, occur frequently enough to supply with plenty of exercise any normally active parental mind. Whenever it is clearly best that the children should not be allowed to end their quarrel themselves, the parent who is not in search merely of self-complacency can ask himself a number of questions. Usually, the time for asking and answering those questions is very brief. The exercise is vigorous while it lasts. On the way from the living room to the nursery, the hastening parent can, for example, perform this rapid mental scale passage: To what purpose am I interfering? Is it to suppress a noise? or to avert a danger? or to teach courtesy? or to instruct in morals? or to do justice? or to establish an amicable basis? Later, and perhaps more deliberately, he will run over this scale of questions: What means shall I use? Shall it be force? or argument? or ridicule? or explanation? or advice? or instruction? or command? or punishment? It requires practice to pounce upon the note principally out of tune in a wealth of discord, and then to choose the one tool that will set it right; but then, there is no vocation more exciting than parenthood.

The noise of a quarrel may be its most serious offense. Yet it may be best at times to disregard all other factors and insist on quiet, whether for the sake of cousin Bettina's nerves, or a tired mother's rest, or a busy father's conference with a creditor, or merely for the sake of reputation with the neighbors. The trouble with us pretentious grown-ups is that usually when we undertake to stop a quarrel because it is disturbing, we delude ourselves into thinking that we have some high moral purpose. We can expose our own fatuity by simply inquiring of ourselves, when we begin our preachment — Would we have interfered if this quarrel had not been so strepitous? It is one of the annoyances in the training of children that if we are to be honest with them, we must be honest with ourselves. I do not see how that can be helped. And with children honesty is prerequisite to authority. To pretend that we chiefly want them to be good at a time when really we chiefly want them to be quiet is to renounce all influence over them when really we arrive at the point of chiefly wanting them to be good. That is reason enough for being honest with them. So when we set out towards a quarrel with the determination of suppressing a noise, we shall, if we are honest, deal with the quarrel, not as turpitude, but as noise. We may not be able to persuade the contestants of the existence of nerves, or headaches, or creditors, or neighbors, or even of our own reasonableness; but we shall at least probably succeed in conveying to them the genuineness of this single idea that is uppermost in our own mind; if you can't quarrel quietly, you shall not quarrel at all. If later we wish to impress upon them the necessity of being considerate of others, we can use that specific quarrel as an illustration without risking with them our reputation for singleness.

A quarrel may involve something which, even more than noise, demands instant interference. Two small boys were in an altercation. The older had a ball. The younger wanted that ball with a consuming hunger. The nearest weapon at hand was the discarded shaft of a golf club. Seizing it, he began his attack with reckless fury. The sound of a blow upon a piece of furniture followed by an outcry of fear brought their father to the room. His thought was not for anybody's manners or morals, nor for the disturbance, nor for a just settlement of the contest; it was for the defenseless boy's head. There was but one possible measure: immediate and forcible confiscation of the club. This was frankly not punishment — which would have involved a moral judgment — but simply humane intervention. The announcement that the club was to remain confiscated for a week merely emphasized the extent of the intervention, not the severity of a punishment. The incident might have served as an occasion for a lecture upon the danger of the wanton use of weapons; but all discussion as to the merits of the dispute was quashed. Likewise was stifled all inclination on the part of the intervening parent to deliver a lesson on the evils of an ungovernable temper. That might not have been confusing, if it could have been made distinct from the act of intervention; but it was not necessary. The fault was not an excess of temper so much as a thoughtless or ignorant use of power. At least, that was the judgment on which this father acted. Whether he was right or wrong is not to the point; what is to the point is that he formed his judgment, acted upon it, and did not obscure the issue by confusing the consequences — or possible consequences — of a deed with its moral character.

[**Need for keeping issues clear.**] — Just as the physical consequence of a quarrel may be more important than its moral aspects, so may be its significance as an exhibition of manners. When their elders hopelessly intermingle precepts as to the amenities with deliverances upon ethics, children can hardly be blamed if they come to regard murder as in the same category with the wearing of tan boots to the accompaniment of a frock coat. An altercation marked by vulgarity, or even by nothing more than delinquencies in courtesy, may be more distasteful to grown-ups than one involving meanness or deceit. In such a case we may give interference the form of an expression of disgust, and keep the issue clear. If, however, we allow it to take the form of punishment, we might as well admit to ourselves that we are engaged not in disciplining children but in relieving our own feelings, and be grateful that we have at hand such an outlet for our emotions.

Occasionally there arises a quarrel which supplies a text for a moral lesson. A quarrel of this sort arose one day between a small boy of five or six and his sister a year or two older. The mother of these two had issued a command to the younger that he take off his wet shoes. In a few minutes she heard the sound of struggle. It called for investigation. There on the nursery floor was the lad, tearful and angry; near at hand his sister, reproachful and indignant. It appeared that his neglect of the order had aroused her to action. He resented her assumption of authority; she resented his resentment. The case was not as

simple as it appeared to be. Punishment of the small boy without explanation would have seemed to him like punishment for disobedience toward a sister who was without authority. On the other hand, a rebuke of the sister for unwarranted assumption of authority would have seemed to her like a rebuke for loyalty to her mother. It was a case, not primarily for punishment or even for rebuke, but for moral instruction, or, if you prefer, explanation.

[**Need for impartiality.**] — As an occasion for the doing of justice, a quarrel among children often presents great perplexities. It is hard for a mother to be a just judge between her children. This is partly because she is so practiced in partiality for her children that she revolts at the apparent hardness of impersonal fairness; partly because she frequently cannot ascertain the facts. A mother who loves justice while she loves her children will not be quick to ascend the bench. . . .

[**Friction inherent in life.**] — As in walking, so in living with our fellows, some friction is necessary. To deprive a child of friction with other children is to keep him in slippery places. Unless we wish to teach him how to elude his kind, we shall not begrudge him his wholesome contests of skill, of wit, of strength, of temper. We shall only take care that he does his fighting fairly and not on too slight a provocation, that he knows how to yield to the weakness of another, that he does not learn to whine or snivel, that he does not become a talebearer, that he can take defeat or rebuke without callousness and without a whimper, that he becomes capable of forgetting his resentments and his personal triumphs over others, and that of all his victories, he learns to value most those which he wins over himself.

SUBSTITUTES FOR FIGHTING*

Sidonie Matsner Gruenberg

[**Fighting a complex fact.**] — In the matter of fighting, it is particularly difficult to form balanced judgments and to develop sane plans. With our usual habit of emphasizing one aspect of a problem to the exclusion of all others, we either fix our attention on the injuries resulting from conflict, and become extreme pacifists, or we fix the attention upon the need for resisting aggression, for defending our "rights," and become belligerent. In one case we make fighting an end in itself, in the other case we make the avoidance of fighting the goal of effort. With the child, however, fighting means more than defense, and it need not always mean that; it means something different from the consequences to person and property. It is almost entirely a matter of exertion, of overcoming difficulties, of conquest — or defeat, sometimes — but even then chiefly as incidental to the conflict.

Our problem is therefore to make full use of youth's eagerness to exert effort, to sacrifice, to devote itself. But we must guard, on the one hand against drawing upon the antisocial and inhuman motives; and on the other hand

* From *Sons and Daughters*, pp. 127–150. Henry Holt and Co. 1916.

against allowing the exertions to result in injuries, whether personal or economical. . . .

The principal of a large city school tells me that he finds among the parents of his pupils just two attitudes towards children's fighting. Either they encourage the fighting instinct without regard to circumstances, or they lay down the rule that the boys must never fight. One attitude is just as arbitrary as the other, and neither fits all cases. Some boys need to be encouraged to stand up to show the stuff they are made of; and others need just as much to be discouraged in their belligerent activities. Each individual has to be judged by himself. And each boy has to learn to judge each fighting opportunity by itself.

Little Harold came home crying bitterly and rather disheveled. There was every evidence of his having gone through a deranging as well as a distressing experience.

"What's the matter, Harold?" his mother asked.

"A boy hit me," he sobbed out.

"What did *you* do?" asked the father.

"I didn't do anything," was Harold's answer.

"Well, next time you hit him first," counseled the father and the incident was considered closed, for there was no serious damage as a result of the beating.

A few days later Harold came home triumphant. He had hit the other boy on sight, and accounts were squared.

[Choice not a simple one.] — However much men may desire an era of peace, we must recognize that boys' fights cannot be dismissed with a formula. . . . Most of us assume that we are obliged to choose between having children become bullies or aggressive trouble-makers, and having them become molly-coddles.

If a boy is taught that it is wicked to fight, and if he is inclined to comply with the wishes of his parents or teachers, he may go so far as to stand still while he is being battered up by one of the "tougher" boys in the neighborhood. No self-respecting boy likes to do that; yet many are forced to do just that by the pressure of the home.

On the other hand, the normal boy does not need to be encouraged to fight. He will find plenty of occasions and plenty of temptations to engage in physical combat. What he needs is to be taught what is worth fighting for and what isn't.

[Values in fighting.] — Fighting has its value as an exercise, for developing control of the muscles, especially during moments of excitement. But this is not worth having at the risk of becoming a bully. Every boy should take pride in the ability to defend himself against attack; and with many boys this ability no doubt needs to be cultivated by means of lessons in wrestling, boxing, etc. But that is very different from cultivating pride in the ability to "lick" other boys for no particular reason. It is the latter sort of thing that is in danger of degenerating into a cowardly, swaggering, overbearing attitude towards the weaker ones. In learning to defend himself, a boy should also learn that physical force is not a just basis for making his way in the world.

Two boys were playing at the home of one of them when the latter was sent

on an errand, and his friend went with him. On the street they met a "gang" of boys spoiling for a fight. One of the two had been taught to fight whenever he was attacked, and no questions asked. The other had been taught to defend himself, but to avoid unnecessary fighting. The latter sized up the situation at a glance. It was impossible for the two boys to stand up against the gang, and he had no pride that required him to undertake an impossible task. He was prepared to fight one at a time; but he had that better part of valor which suggested a discreet retreat, with an appeal to the police or some adult. We should guard against cultivating that false sense of "honor" which will lead a boy to do foolhardy things in upholding a perverted ideal. There is no honor or glory in getting smashed by little brutes whose instincts have not been properly trained.

[**Negative virtue.**] — In contrast with the boy who knows when to fight and when not to, is the case of one who would not fight under any circumstances. This boy was the delight of a dozen tormentors who would chase him after school until he took refuge in some store, from which he would telephone home to his mother to come and fetch him!

The moral effect of one's attitude towards fighting is even more important than the physical effect. While aggressive combativeness is to be discouraged, we should try to retain enough of the fighting spirit in each child to make sure that the young people do not grow up with a soft indifference to injustice. The late William T. Stead used to say that he was so anxious to have peace that he was willing to fight for it. That is a distinctly sane attitude for young people to acquire. . . .

[**Substitutes for fighting.**] — The bread-baking contests and the dress-making competitions for girls, like the corn-raising or shop contests for boys, utilize the same motives of rivalry as we find in the ordinary athletic contest or street fights. But the form of the conflict and the material consequences are in no way objectionable.

When the older children are organized for team play, we begin to get the kinds of sacrifice that the group always demands of the individual, and in many respects the more vigorous forms of athletic sports are quite the equivalent of good fighting, so far as the participants are concerned. The motives are still those of rivalry, but the prospective gain or victory is now no longer for the individual, but for the group. And when boys all but exhaust themselves for the "glory of the school," the moral results are of the highest kind.

We go a step farther when the corn clubs conquer insects and fungi, and control the soil and the seasons for the glory of their county or district, for soon the interest may be extended from the mere "beating" of the rivals to the increased contribution to the corncrib at home. The same kinds of results morally are obtained when we utilize the group rivalries in a "clean-up contest." The girls will make their streets and yards and porches as attractive as possible, at first for the purpose of making a better showing than those of the next street. Presently, however, the interest may be directed so as to center upon the chasing of Dirt as the villain of the drama. . . .

[Sublimation of fighting.] — Boys and girls who have learned to coöperate in various kinds of group contests need not abandon the fighting motives and the powerful organizing influences that these motives exert upon our activities, as they grow older. But they must be taught to select more and more worthy enemies, as well as more and more worthy causes. Disease still remains to be conquered, for example, and the best physicians and nurses approach their work in the spirit of the soldier. Still more imagination, still wider sympathy are required to attack the enemy, Disease, through the refined instruments of research of a modern scientific institute. Here all the fighting instinct is directed toward the solving of complex problems, toward the conquering of obscure yet formidable obstacles. Here the element of rivalry is at a minimum, for the contest is with impersonal forces. Here the motives are of the loftiest, for the beneficiary of the struggle is no narrow group, but the whole race. Here the stimulus to effort is far removed from such emotions as anger, envy, or hatred.

In similar ways, vast engineering and economic and social problems furnish worthy foes for the fighting instincts of our boys and girls. It is necessary to reconcile our loftiest sentiments with the inescapable fact that all life is struggle. We can shift the plane of the struggle from that of personal or group aggrandizement at the expense of others; we can shift the motives of the struggle from fear and hatred; we can shift the methods of the struggle from brute force and cunning. But to live is to fight, and we must teach our children to make the best fight possible.

THE BODY'S NEED FOR FIGHTING*

Walter B. Cannon

The militarist contention that the fighting instinct is firmly fixed in human nature receives strong confirmation in the results of our researches. Survival has been decided by the grim law of mortal conflict, and the mechanism for rendering the body more competent in conflict has been revealed as extraordinarily perfect and complete. Moreover, the physiological provisions for fierce struggle are found not only in the bodies of lower animals, that must hunt and kill in order to live, but also in human beings. Since this remarkable mechanism is present, and through countless generations has served the fundamentally important purpose of giving momentous aid in the struggle for existence, the militarists might properly argue that, as with other physiological processes, bodily harmony would be promoted by its exercise. Indeed, they might account for the periodic outburst of belligerent feelings by assuming that these natural aptitudes require occasional satisfaction. . . .

Although there is increasing opposition to the display of the fighting emotions and instincts in war, nevertheless the admirable moral and physical qualities,

* From *Bodily Changes in Pain, Hunger, Fear, and Rage*, Chapter XV, "Alternative Satisfactions for the Fighting Emotions." Copyright D. Appleton & Co. (1915–1920) 1923.

claimed by the militarists to be the unique products of war, are too valuable to be lost. As McDougall[1] has indicated, when the life of ideas becomes richer, and the means we take to overcome obstructions to our efforts more refined and complex, the instinct to fight ceases to express itself in its crude natural manner, save when most intensely excited, and becomes rather a source of increased energy of action towards the end set by any other instinct; the energy of its impulses adds itself to and reënforces that of other impulses and so helps us to overcome our difficulties. In this lies its great value for civilized man. A man devoid of the pugnacious instinct would not only be incapable of anger, but would lack this great source of reserve energy which is called into play in most of us by any difficulty in our path.

Thus the very efficiency of a war against war, as well as struggle against other evils that beset civilized society, rests on the preservation and use of aggressive feeling and the instinct to attack. From this point of view the insistence by the militarists that we must accept human nature as we find it, and that the attempt to change it is foolish, seems a more justifiable attitude than that of the pacifists who belittle the fighting qualities and urge that changing them is a relatively simple process. We should not wish them changed. Even if in the war against war a means should be established of securing international justice, and if through coöperative action the decrees of justice were enforced, so that the occasions which would arouse belligerent emotions and instincts were much reduced, there would still remain the need of recognizing their elemental character and their possible usefulness to society. What is needed is not a suppression of these capacities to feel and act, but their diversion into other channels where they may have satisfactory expression.

While it is true that physical strength can be developed by any form of hard labor, as, for example, by sawing wood or digging ditches, such labor does not stimulate quickness, alertness, and resourcefulness in bodily action. Nor does it give any occasion for use of the emotional mechanism for reënforcement. If this mechanism, like other physiological arrangements, is present in the body for use — and previous discussion leaves little doubt of that — then as a means of exercising it and, in addition, satisfying the strong instinct for competitive testing of strength and physical skill, some activity more enlivening than monotonous gymnastics and ordered marching is required.

In many respects strenuous athletic rivalries present, better than modern military service, the conditions for which the militarists argue, the conditions for which the body spontaneously prepares when the passion for fighting prevails. In competitive sports the elemental factors are retained — man is again pitted against man, and all the resources of the body are summoned in the eager struggle for victory. And because, under such circumstances, the same physiological alterations occur that occur in anticipation of mortal combat, the belligerent emotions and instincts, so far as their bodily manifestations are concerned, are thereby given complete satisfaction.

[1] McDougall, Wm. — *Introduction to Social Psychology.*

THE SUBLIMATION OF FIGHTING*

PIERRE BOVET
(English translation by J. Y. T. Grieg)

Since the fighting instinct exists in every man, and is capable of being expressed in very different ways, how shall we contrive that it issues in acts which are useful, instead of harmful, to other people? What must be done to utilize the fighting instinct in the individual for the general good? . . . . At the point we have reached in social evolution, the political society, the State, has not completely sublimated its collective pugnacity; it still wages armed conflict against its neighbors. It is important, therefore, for the State, that the fighting instinct of its members shall *not* be wholly deflected and Platonized, but shall rather be reserved and raised, for the profit of the restricted community to which they belong. With times of war in view, the State is thus careful over *the military education* of individuals. It is anxious to turn the individual fighting instinct to the service of collective pugnacity. At times, this anxiety about war dominates the mind of a group to such an extent that the whole problem of civic education is reduced to one of military education; at other times, the idea of war is so remote that civic and moral education become one and the same.

The ideal of a society of nations, a League of Nations — to adopt the current term — in which the fighting instinct of each of the political groups would be utilised for the greatest good of all, raises a problem of collective education which we shall call *the problem of pacifist education.* How shall we contrive the sublimation of collective pugnacity itself? . . .

On the whole, our study of methods of education, in relation to the pacifist ideal, leads us to the following conclusions. The pacifist ideal is in the line of human development, such as this is shown to be in individual and social psychology. It comes naturally to be inscribed in the program of mankind. Its realization implies a double progress of the individual and society, and so includes a double program of education — on the one hand, a program of political education rendering effective the control of the antisocial tendencies of the governing classes by the democratic masses; on the other hand, a program of integral moral education, encouraging the alteration of dangerous forms of the fighting instinct into tendencies that shall be inoffensive (sports), social (civic and knightly service), or moral (monastic and heroic virtues), or the complete absorption of the fighting instinct within the instinct of love (religious conversion).

* From *The Fighting Instinct*, Chapter XIV, "The Fighting Instinct and Problems of Education"; Chapter XVII, "Pacifist Education." Dodd, Mead and Co. 1923.

XI. THE USE OF MONEY

If we are, as has been said by a prominent and well-informed financier, a "nation of economic illiterates," we must blame neither the schools nor our parents for past neglects. It is hard for most of us who think about the matter to realize that only two generations back the place of money in life was so different from what it is to-day. When most of our population was agricultural or scattered in small towns, a larger proportion of all business transactions involved the actual handling of money than is the case to-day. On the other hand, buying and selling, in one form or other, plays a much larger share in the daily life at present than ever before. And the need for acquiring both sound attitudes and clear understanding on the meaning and use of money is very great for every child.

Some thirty years ago Earl Barnes initiated several studies in this field,[1] and so helped to formulate a number of concrete questions that are still significant. From the first of these papers the following questions are taken:

Ought children to have an allowance?

Ought children to be paid for domestic services?

Should children save money for the sake of accumulating?

Are school savings banks desirable?

Should children save to get some important thing, as a bicycle?

Should work in arithmetic and other branches be adjusted so as to develop children's sense of money values?

Should children be given early a sense of the economic value of their clothes, books, and playthings?

Should children be encouraged to give money to organizations removed from their own immediate life, such as missionary societies?

The public schools in various parts of the country undertook to train children in a better understanding of the money values of their food, books, toys, clothing, and so on, through the use of arithmetical exercises, shortly after the Civil War. And efforts were made to inculcate thrift, largely by means of some form of school savings bank. That

[1] *Studies in Education*, March, 1897; April, 1902. Reprinted in *Studies in Education*, First Series, pp. 323–331, Anna Kohler, "Children's Sense of Money"; Second Series, pp. 62–70, Blanche Dismorr, "Ought Children to Be Paid for Services?"

these efforts, continuing down to the present, have not been altogether successful should surprise no one. The teachers, mostly young women who themselves had no training, were quite lacking in the rudiments of knowledge regarding fundamental economic facts and forces. They could, of course, teach arithmetic in terms of yards of calico, or dozens of eggs; but they did not themselves understand the meaning of these units in relation to human effort and human values, and therefore could not develop such understanding in their pupils. In the second place, the dominating interests and activities of the whole period were concerned with "making a living" under conditions that involved great hardships on the one hand and spectacular fortune-finding on the other. In all forms of business enterprise the speculative element was the most prominent; fortunes were made, but nobody knew just how they were made or whose labor paid for them. People grew up without ever discovering the essential nature of the exchange process symbolized by money. And finally, since the progressive organization of business has forced us to measure more and more of our values in money, the symbol has at last come to be for large numbers an end in itself.

As we ourselves attain to clearer understanding, and as the teacher comes to be better trained, we may expect certain results in the education of children. (1) There must be a general realization of the sources of true wealth — that is, goods and services — in human effort and the natural resources. (2) There must be a shifting of emphasis away from possession or saving as an end in itself. Too long have we been thinking of possessions and of money as inherently desirable, without reference, on the one hand, to the sources or the cost of saving, and without reference, on the other hand, to the uses to be made of possessions or money. The methods often used in schools to stimulate interest in the savings bank, by appeal to rivalry or desire for approval, have often produced undesirable effects. (3) There must be acquired a firm grasp of the meaning of money as a medium of exchange and all that this implies. This is so closely tied up with the progressive division of labor and the consequently increasing interdependence of different classes of the population, different occupational groups, different regions of the country, different nations, that the very existence of whole peoples rests upon a continuance of the process of exchange. And yet our education of the young, whether at home or in school, has for the most part ignored these fundamentals. Where need for education along economic lines has been brought to the attention of the public or of educators, we have been content to add to our curriculum either in-

spirational exhortation on the importance of being able to "earn" — and to save — or vocational courses fitting for an early entrance upon a wage-earning career.

The schools can no doubt do very much to overcome the widespread ignorance regarding these essential elements of social living and mutual relationship, and promising beginnings have already been made; but there always remains the responsibility of the home. Children acquire significant attitudes before they go to school. They get much of their training from the routine of home life, in which they take a more or less active part — the decisions that have to be made as to what the family can or cannot afford; the actual handling of money in various petty expenditures; the making of choice as to materials and styles; the regularity with which the family exchequer is replenished; the apparent efforts of parents to get and to save; and so on. Children also get from the home, very often, a serious confusion or even worry, because in their discussions of money matters and the family's resources the parents surround the subject with mystery or secrecy. Much of the actual experience with money, its earning and its spending, is beyond the control of the school, however important we may believe these things to be for the child's education. While the specific task of each is thus distinct, school and home should at least work toward the same ends in understanding and ideals.

THE IMPORTANCE OF MONEY IN PRESENT-DAY LIFE*

EDWIN A. KIRKPATRICK

[**The rôle of money in modern life.**] — The need for financial training is increasing. Money has a steadily growing importance in life as civilization progresses. Money may quickly procure the necessities — food, fuel, and clothing. It may give us any kind of scenery or climate we prefer. It can surround us with works of art and literature and give us leisure to enjoy them. It can procure for us any sort of amusement we may desire, and, above all, it can to a considerable extent determine our companions.

Looked at from the earning side, all of the industries are to the workers merely means of getting money. In more primitive conditions each man worked directly for what he wanted; he searched for his food, built his shelter, traveled where he wished, and lived among people whom he could personally please or influence.

Now his efforts are directed toward getting money and with *it* he procures

* From *The Use of Money*, Chapter I, "Importance of Financial Training"; Chapter IV, "Financial Joys and Sorrows"; Chapter VIII, "Earning Money"; Chapter XIII, "Keeping Accounts." Used by special permission of the publishers, The Bobbs Merrill Co. 1915.

the satisfactions that he most desires. In many places only money can procure fresh air, sunlight, warmth, amusement, knowledge, power. . . .

Looking at the matter from the social point of view, we find that every kind of institution — political, religious, social, cultural, recreational and educational — must be supported by money. All the conveniences of life — roads, lights, water, mails, etc. — can be obtained only by the expenditure of money, which must be gathered by taxation or by gift from those who have it. Every citizen is a partner in the business of providing public protection and public conveniences, and only those who know something of financial affairs can vote intelligently. Great care is needed lest taxes be collected unfairly and the money expended unwisely, perhaps in ways that help the rich and harm the poor.

Since our work, our amusement, our culture, and our opportunities for social life are at the present time largely dependent on our financial status, it would seem that no one can consider himself prepared for life who has not had some training in solving financial problems. Is it not worth while to consider where and how such training may be given, before the child enters upon the serious work of life, where he can learn only by costly experience? . . .

[**Need for education on money.**] — Some parents say little about money and the children are in almost complete ignorance as to the part it plays in their lives. By talking about it a great deal other persons give children the idea that it is the chief object of desire; but children can get a true idea of the part it plays in life only through observation and experience of its cost and use. The problem of financial training is largely one of giving the opportunities for such observation and experience at the right time and in the right way.

It is perhaps not necessary to point out further the value of money to Americans, who are said to be worshipers of the "Almighty Dollar." However, we may remind them that it has no value in itself but only in what it will buy. It is only a convenient means of exchanging effort for some sort of satisfaction of desire. This, however, is why the question of financial training is so important. It is not merely a matter of computing the value of things in terms of a unit of value.

[**Problems of management.**] — Financial problems are deeper and more fundamental than rules of arithmetic. They involve choice as to what our life shall be, determine what effort we shall put forth and what desire we shall satisfy. If we put forth little effort we can get enough to satisfy only a few desires. If we put forth too much effort we may have little time or energy for gratification. If we spend our money as fast as we get it satisfactions are quickly obtained but are often transient. If we hoard our money there is some pleasure in the thought of its possession and perhaps a good deal of worry lest it be lost, yet most of it may be spent by others. If we save with a view to gratifying a special wish as soon as we have enough we enjoy the pleasure of anticipation and also that of realization. The kinds of satisfactions, however, that we anticipate and realize differ as widely as our desires and ideals. That for which you save and spend tells what you are and what you wish to be.

[**Moral aspects.**] — The moral significance of money can not be ignored. Owners of property are generally more responsible and appreciative of property rights than those who own no property. It is a familiar truth to social workers that, among the very poor, increased effort to earn money and the purchase of useful things are among the best indications of moral improvement. In the case of the rich, carelessness as to how money is gained and spent is almost equally clear evidence of moral decline. Most crimes are attempts to get money without giving an equivalent for it.

The problem, then, of the financial training of children, as they begin to make use of this medium for transforming effort into some kind of satisfaction, is not merely one of financial training in the narrow meaning of the word, but of practical, social, philosophical, and moral training as well. In earning and spending money the child comes face to face with some of the most important of life's problems. His future success and his usefulness to society are greatly increased by proper training in directing effort and in the choice of ways in which he gets and spends money.

[**Child's need of experience.**] — When we thus emphasize the importance of children's receiving financial training it is not to be inferred that formal lessons on the subject must be given them in home or school. On the contrary, it is probably better that little or no formal teaching regarding money shall be given. Experience in actually earning and spending money is the basis of all real financial training. Talking to the child about money will educate him only as far as it helps him to understand his actual experiences and those that he can picture clearly in imagination. The problem of financial training is largely one of giving opportunities for educative experiences with money. . . .

Adults often find difficulty in deciding what use of money will give the most pleasure to themselves, but frequently they assume that they know better than a child how he should spend his money. The child's desires, however, differ so much from those of adults that the latter are often mistaken as to what will give most satisfaction. A nickel spent by a child to get just what he wants at the time, even though the pleasure it gives is only temporary, may be worth more then, and later in memory, than a five-dollar bill spent wisely in adult life. The child may never again be able to get so much satisfaction for the money as when he spends it for something he will not care for when older.

Parents have learned by their own experience that it does not usually pay so well to spend money for immediate temporary pleasures as for more permanent ones, but they know that there are exceptions to this rule. In directing the spending of children they are likely to forget that their adult experiences and feelings about the matter may not *always* be the standards for the child in exchanging money for satisfaction. They also often underestimate the value or harm of the child's own experiences of pleasure and disappointment. . . .

[**Keeping accounts.**] — The age at which a child may begin keeping accounts may vary greatly according to the progress of the child and the amount of attention the parent gives to the matter. A child of three or four who is given a certain number of pennies each week observes how his store disappears. As

soon as he can count he keeps a more definite mental record. If a mother desires to do so she may begin keeping an account for her child when he is just beginning to learn to write and do numbers. Then as soon as he can make figures and write a little she may let him keep his account, showing him how and helping to spell the hard words. In most cases, however, children are not asked to keep accounts until they are ten or twelve years old. It should not be delayed much longer than this.

A failure is disagreeable, especially if it occurs frequently. This is the chief reason why older people so often dislike keeping accounts and why children often hate them. If accounts do not balance, as is so often the case, the sense of failure is borne in on one and keeping accounts is held responsible for the unpleasant feeling. There is some justification, therefore, in encouraging children to keep records of money that they get and that they spend without asking them to balance the account. After they have become used to keeping accounts and have been taught how business men keep them, they may take pride in using the same method and in having the accounts balance.

With the keeping of personal accounts there may well be preliminary and supplementary practise in making out statements of shopping errands. These should include a statement of money received and the items of expenditure, and the cash returned should balance with it. Considerable financial training may be obtained by girls in connection with household affairs. . . .

[Money earning and self-respect.] — More children wish to leave school at about fifteen than at any other age. One of the chief reasons for this is that they may earn money. The period of helpless protected infancy is passed and the instinct of independence asserts itself. The boy is no longer satisfied to be wholly supported by others, and present social conditions are bringing about a similar state of mind in girls.

In many tribes there are elaborate ceremonies and changes of dress at the period of adolescence, to mark the change from childhood to manhood. In this country to begin providing for one's self financially is taken as the most significant sign of adulthood. Earning money was desirable before, but now self-respect seems to demand that the youth shall be financially somewhat independent. It is not necessary that he shall be entirely self-supporting, but he must do something for himself and spend what he regards as peculiarly his own, to gratify his now more clearly defined individual desires. The person who has never earned money has no adequate appreciation of its value. If a child has not had the experience of working for money he should certainly be given it, and at this time he should now have additional opportunities. . . .

[Money earning and self-reliance.] — It is good experience for a child, especially in his teens, to find work outside of the home. Commercial enterprises that children engage in often give valuable experiences. It is an advantage if not all the means of earning money are supplied or suggested by the parents. A child who needs money and exercises his ingenuity in finding ways of earning it is developing initiative that will be of great value to him in after life.

Those who are interested in preventing the evils of child labor should not

forget the valuable experience that is gained in earning money. In many city homes this can not be given in the family and some form of part time work will probably have to be provided for children in their early teens. This is not to be construed into a plea for the exploitation of children by manufacturers. Work, as well as study and play, should be conducted in such a way as to be a valuable experience to them. Work at regular times for a just compensation develops and educates a child, *providing* the work is not too hard or too specialized and if he has left sufficient time for study and for recreation. Many children would be the better for a few hours' work a day for a part of the time and the money earned would make it possible for many of them to continue studying under healthful conditions longer than would otherwise be possible.

LEARNING THE USE OF MONEY*

SIDONIE MATSNER GRUENBERG

In his *Children's Story-Sermons*,[1] the Rev. Dr. Hugh T. Kerr tells the following story:

> One morning when Bradley came down to breakfast, he put on his mother's plate a little piece of paper neatly folded. His mother opened it. She could hardly believe it, but this is what Bradley had written:
>
> Mother owes Bradley
>
For running errands	$0.25
For being good	.10
For taking music lessons	.15
Extras	.05
Total	$0.55

> His mother smiled, but did not say anything, and when lunch time came she placed the bill on Bradley's plate with fifty-five cents. Bradley's eyes fairly danced when he saw the money and thought his business ability had been quickly rewarded, but with the money there was another little bill, which read like this:
>
> Bradley owes mother
>
For being good	$0.00
For nursing him through his long illness with scarlet fever	.00
For clothes, shoes, gloves, and playthings	.00
For all his meals and his beautiful room	.00
Total that Bradley owes mother	$0.00

* From *Sons and Daughters*, "Children and Money," pp. 310–318. Henry Holt & Co. 1916.

[1] Fleming Revell Co. 1911.

Tears came into Bradley's eyes, and he put his arms around his mother's neck, put his little hand with the fifty-five cents in hers, and said, "Take all the money back mamma, and let me love you and do things for you."

[**We take money for granted.**] — The homes of this country are full of Bradleys who know nothing of rights and duties as related to money. And how should they know, never having learned? Among the children of the poor there usually develops rather early in life a keen appreciation of the value of money. Whatever money there is is quickly spent, and comes to represent pretty definitely the necessities and the luxuries of life. A dime means a loaf of bread and a penny means a stick of candy. Money is hard to get and good to have; and without it we suffer privation and misery. On the other hand, in the homes of the well-to-do and in the country, where comparatively little cash is handled, the opportunities to become acquainted with the sources and properties of money are rather narrow. Here people somehow have what they need, and no special effort or hardship is associated with getting these things. What is wanted is "ordered," and the children know nothing about the cost. Whatever money they may wish for the trifles that they buy themselves can usually be had for the asking. When Jessica's mother declared that she really could not have the money for a large doll that had caught the child's fancy, she was reminded simply that she might get the money at the bank. . . .

[**The child has to learn anew.**] — Money plays so important a rôle in modern life, that we are apt to take it for granted without thinking especially of teaching children what they should understand of the matter. Children should learn these things definitely and practically, beginning as soon as they are old enough to appreciate relative values. A child can begin by buying things for the household when he is able to distinguish the coins and count up the amounts. The age for this will, of course, vary with different children. It is, however, only through experience in buying that a person can ever attain to judgment in buying. The sense of values comes from familiarity with many values in terms of a common denominator. The methods by which people come to be possessed of money, and the relation of service to payment, should enter the child's experience as soon as he can understand these things. . . .

[**The allowance.**] — A child may be given a small regular allowance for his own use. Through this he may learn the joy of immediate indulgence of trifling whims; or he may learn to expend his resources with discrimination; or he may learn the advantages of deferring expenditure for more favorable purchasing. The child's claim to such an allowance can be justified to his mind on exactly the same ground as his claim to food and clothing and other material and immaterial wealth shared in the home. He gets these things not as a reward of merit, but through his status as a dependent member of a household.

For the reason that the allowance is a part of the routine income of the child, by virtue of his membership in the home community, it should never be used as

an instrument of "discipline". If the allowance can be justified at all, it should be increased only in recognition of larger needs, and it should be diminished only when retrenchment is necessary for the family as a whole, or when changing conditions indicate reduced needs for the child. Thus, older children may legitimately expect to receive larger allowances than the younger ones. And, on the other hand, if living in the country part of the year reduces the occasions for spending money, it may be proper to cut the allowance down. Or this may be the opportunity for learning the satisfaction of putting something aside. . . .

[**Without strings.**] — When Agnes failed to return from a visit to a friend at a sufficiently early hour, her mother said nothing; but at the end of the week she took off ten cents from the allowance. In this the mother was entirely in the wrong, for in the first place the money allowance of the child should be on exactly the same basis as the other privileges which he enjoys as a member of the family, and not be singled out as a club for penalizing delinquencies. In the second place, by using it in this way the mother at once reduces the responsibilities of the child to a cash basis. Agnes can calculate next time whether staying out later is worth the ten cents that it costs. This attitude also opens up the whole field of the child's conduct to petty bickerings and bargainings about the number of cents to be paid for each "good" deed, or the number of cents to be deducted for each "bad" deed.

[**Earning money.**] — In addition to an allowance, children should have opportunities to earn extra amounts of money. It is the money earned that gives them the necessary inner experience without which one is never able to translate money values into terms of effort and exertion and sacrifice. Money that comes without effort may teach the child to spend wisely, or to save; but it can never teach him the human cost of the things that he uses from day to day. It is perhaps at this point more than anywhere else that the children of the well-to-do fail to become acquainted with the life problems of the mass of the people. They come to feel the value of money in terms of what it can buy, but not in terms of what it costs.

[**Duty without price.**] — In many a household it becomes necessary for a number of the daily tasks to be performed by the children. If these tasks are looked upon as duties, if they represent definitely the children's share of the upkeep of the establishment, they should not be paid for. Nevertheless, it would be proper to agree upon a scale of payment for doing some special task for which an outsider might otherwise be hired. . . .

Many parents see, in the plan of paying children for work, the danger that whenever a child is asked to do something, he may make it the occasion for exacting payment. This danger is more apparent than real. On the contrary, should such occasions arise, they should be utilized as the most favorable opportunities for explaining to the children that there are some things for which we pay, and others which we do for each other without getting any pay. Of course, parents should be clear in their own minds as to what their standards are in these matters.

[**Fair pay.**] — The amounts paid to a child cannot, of course, be accurately gauged to the value of his services. But they should not be excessive, for then one of the chief advantages of working for pay would be entirely lost. On the other hand, if the pay is too low, the child will soon find it out, and his mind will dream of the riches he could accumulate if he only quit school and went to work as errand boy in some store or office!

For many people ideas of financial relations and responsibilities are completely warped by the failure to experience during childhood a definite policy in these matters. Instead of haphazard giving, there should be a definite schedule of payments and allowances.

[**Experience in buying.**] — When children come to have money with which to buy things for themselves, we are usually tempted not only to guide them, but to regulate them. Now while guidance is a good thing, too much regulation is likely to defeat its own ends. It is so easy to spend money foolishly; and we wish to save the children from folly. But it is only by spending money both foolishly and wisely that the child can ever learn to know the difference. It is only by having experience with both kinds of spending that he can come to choose intelligently. It is more important, in his early years, to teach the child how to spend his money than to make sure that he has spent it well. He will have more to spend later on, and the lessons will be worth more than the advantage of the early protection against unwise purchases. Caution and advice are to be given, of course; but like many other good things, they should be given in moderation.

[**Saving and spending.**] — Even in the matter of learning to save, it is better to begin by spending. By spending trifling amounts as fast as they are obtained, children come to realize the limitations of a penny or two. By occasionally omitting an expenditure and thus acquiring the power to purchase more satisfying objects, the child may acquire sufficient ability to project himself into the future for the purpose of saving for more and more valuable things. There is no virtue in saving that comes from putting the pennies in the bank through force of a habit formed under the compulsion of penalties imposed arbitrarily from without. The child should learn to save through the experience of advantage gained by making sacrifices in the present for a prospective return in the future.

[**Service and income.**] — In households that do not manifest through their activities and conversation the methods by which the family income is obtained, children should be explicitly informed on the subject. It is not only embarrassing to the child to display his ignorance when comparing notes with other children, but it is a necessary part of his understanding of the world to know just how people obtain the precious tokens by means of which they secure all their necessities and extras.

XII. COLLECTING AND OTHER HOBBIES

A hobby is something to ride when we have nowhere to go and cannot sit still. It represents the restlessness that drives us to action and the self-assertiveness that forces the individual to make his life distinctive.

With the increasing leisure and the longer years of adult life more and more people value the hobby on the negative side, as an escape from tedium and as a compensation for dull monotony of the regular work, and eventually on the positive side as a source of enthusiasms and joy. Although the hobbies pursued in adult life usually have their beginning before adolescence, there is a great deal of experimenting and dabbling over a long period. In the child there will be an aimless roaming over the whole range of possible experience before a hobby is definitely appropriated.

Generally speaking hobbies tend to fall into three classes, those of *having* (acquiring or collecting), those of *doing*, and those of *making* or *creating*. In each class we find all degrees from the crudest physical interest to the highest levels of abstract or spiritual interest. Thus, people collect marbles, dolls, stamps, shells, or they collect books, etchings, corner lots, rare jewels, furniture; but they also collect athletic scores and trophies, or special information. One person wants to know everything about Washington or about submarines, another collects unconsidered trifles about royal scandals, or about cathedrals, or eclipses of the sun. Collecting in one form or another is probably the most common kind of hobby.

While many of the distinctive features and institutions of our civilization rest upon property, the early manifestations of those impulses that lead the child toward the having and the understanding of property are commonly repressed or resisted because they run counter to our convenience. The child's accumulations and the use he makes of his pockets are often sources of annoyance. Moreover, in his avarice the child is not only extremely selfish at certain stages of his development, but apt to break the very laws of property themselves — he may steal, or resort to other dishonest means of getting what he wants.

Numerous studies point to the universality of this tendency to acquire, and to the fact that this tendency undergoes a progressive

development which may normally lead to highly desirable social virtues, such as regard for the property of others, skill in making money in ways that are socially beneficial, orderly thinking, establishment of socially useful accumulations for museums, galleries, and the like.

An activity of some sort is very wide-spread, but we do not ordinarily think of hiking or wood chopping as a hobby. Mountain climbing, as distinct from the stunt or from the collecting interest, may be considered along with the mild interest in playing various kinds of games, whether on the athletic field or at the card table. A great deal of gardening or of reading is empty pastime, in a literal sense; yet here as with other pursuits the tendency is toward specialization, toward increasing skill, toward pride in attaining something that is unique.

The creative forms of activity, whether in simple handiwork or in the highest reaches of art work and scientific research, represent almost from the first an urge to express the personality, as distinguished from mere random activity and from the urge to make an impression upon the materials or the persons of the environment.

There is in every hobby the possibility for growth and for the discovery of higher life values; but these things come with time and are not to be expected from the start.

With an increasing appreciation of the value of a hobby, we shall of course provide both opportunity and encouragement, or at least freedom and toleration, for the children's enthusiastic pursuit of specialties, even though these may prove to be but fleeting interests. We should not, however, urge upon them the selection or pursuit of a hobby, for that would put us in the position of the well-meaning playground director who sternly insists upon everybody being joyful.

Hobbies cannot be found ready made; they are to be discovered through free adventure in the open fields, and each must find his own or go without.

THE YOUNG MISER*

SIDONIE MATSNER GRUENBERG

Whenever we are especially apprehensive lest a child develop a certain unlovely trait, we are told to stop it in infancy. But sometimes it seems necessary to permit certain impulses to find outlets in infancy, to make sure that they do not crop out later in life. It would seem that about the only way to prevent a person from becoming an old miser is by giving him a chance to be a young miser.

* From *Sons and Daughters*, pp. 104–107. Henry Holt & Co. 1916.

The collecting instinct appears very early in the child, and is prominent at about seven or eight years of age. It shows itself in numberless ways. The saving of buttons and pins may give way to the collecting of sea-shells or cigarette pictures. The little girl saves scraps of ribbon and lace quite as much because her instinct to collect is developing as because the ribbons and laces appeal to her sense of beauty.

[**Appropriation at first unconscious.**] — At first there is not much consciousness in the process. The little boy will gather in pebbles and bits of colored glass without much discrimination. It is just the primal instinct to appropriate whatever is not too securely fastened to be carried off. And the little boy's pocket is notorious for the variety of its contents not merely because he has a great variety of interests and must be prepared for many different kinds of emergencies. In large part his pocket's contents reflect the scenes of his most recent experiences; the pocket contains samples of what has come within the boy's reach.

For a while this unconscious impulse to pocket what is touched and to touch what is seen may be a source of great annoyance to the other inhabitants of the house. It may help you at times to locate the missing tape-measure or the key to the bathroom; but it is a nuisance nevertheless. However, there soon comes a time when this instinct to gather expands into a conscious purpose to make a collection. If we have patiently and wisely allowed the child to pass through the shapeless appropriation of nothing in particular we shall find it easier to make use of the later stage to good purpose. For with the desire to make collections comes an opportunity to cultivate system and orderliness, that is hardly exceeded by anything found in the home or the school.

[**Collecting leads to appreciation of order.**] — To make a collection means to have a fairly definite idea of species and genera and orders. If it's "transfers" that make up the collection, they can be sorted by colors and sizes and carlines; they can be arranged in chronological order, or in alphabetical order; they can be bundled by tens and hundreds or by dozens and gross. If we are collecting "coupons" that come with soap or with cereals, we have similar opportunities to sort and classify and arrange. Later, when we come to collect postage stamps, the opportunities for classification are just as great, although they are apparently restricted by the traditional conventions of the game. And the parent will be interested to note that all of this gathering and classifying implies a place for everything and everything in its place — a much more forceful implication here than ever came from precept or example or moral tale about the child who missed the chance to go to a picnic because his cap could not be found.

[**Collecting worth encouraging.**] — Gathering street-car transfers and coupons is an inexpensive pastime, and is hardly noticed by parents. When noticed it is likely to seem trivial and wasteful of precious time that might be put to better use, and is accordingly apt to receive discouragement. When cigarette pictures are collected, parents will question the good taste of the pictures; in the case of picture postals and postage stamps, they will balk at

the expense. Nevertheless, we shall find it worth while to encourage, if only passively, this impulse to make a collection and to develop it intensively. Let the child gather according to his interests, according to the best taste of the surroundings, according to the material that is most promising. In the country there is the opportunity to collect leaves of all the kinds of trees or shrubs; or to collect flowers or flying seeds or insects. If we discourage the collection of birds' nests or eggs, or of skins of animals, it is not because these things take up more space in the house, or cost more money to get and to preserve, but because they involve cruelty that the child can understand. At the seashore, one can gather sea-weeds and mount them neatly on white cardboard squares, or sea-shells and other queer flotsam cast up by the tides.

[**Interest in objects changes.**] — In time one's interest in collecting butterflies as curios may disappear entirely, or give way to a scientific interest. In time one's interest in picture postals may disappear entirely or give way to an interest in etchings or oil paintings. Whatever happens, however, may be considered in the nature of a safety-valve, if the collecting interest has really had its opportunity. For this is where the miser comes in.

[**Need for growing interests.**] — Sooner or later every young person, and especially every boy, will be confronted with the need to gather the symbols of material wealth — money will come to be considered not only very desirable, but even necessary. If the child begins to concentrate his collecting interests on money, he will have every opportunity to develop this interest as the main concern of his life. And that is what we mean by a miser, one whose interest is in the accumulation of money for its own sake, as we say, one who is concerned with having more, but not with using. This is the childish instinct to gather directed towards coins and bills — instead of buttons and transfers.

The misery of the miser lies in the narrowness of his interests, not in the nature of the instinct which he indulges. To save children from becoming misers, we must broaden the interests through which these instincts may find their outlet.

RELATEDNESS OF PLAY*

JOSEPH LEE

[**Property expresses the child.**] — The child feels as he does towards his treasures because they are in truth part of himself. They are his conquests, outposts of the mind, by means of which he will divine, classify, and assimilate still further territory. He has property in these, as he has property in tools, because in the continued possession of these the persistence and extension of his life is now involved. In searching for treasure he has really been searching for himself. . . .

[**Ownership and order.**] — Every child should have a box, a drawer, or a closet of his own in which to keep his treasures, and a piece of wall to pin his pictures on. After the pocket, this is the next circle of the widening personality.

* From *Play in Education*, Chapter XXXIV. The Macmillan Company (1915) 1923.

And in his treasure house there should be room to classify. Order is the condition of true possession. He wants to control, not only in the physical but in the mental sense; to understand his world, not merely rub against it. There is in every child a passion for order, for handles to swing things by, for coherence in them that they may be swung; for getting them sorted, each kind in a box to itself where it can be dealt with all at once. Mental dominion, unity through order, is his great desire. You have not observed that he was orderly? Perhaps not; but there are different kinds of order, and different subjects. You and the chambermaid may not agree about your papers, any more than you and your daughter about her caterpillars. Science and housekeeping often misunderstand each other.

[**The child's own place.**] — Next to the treasure box comes the room or lair. There are, it is true, instincts at work here other than that of organizing one's world. All children make houses of chairs; most, when given a chance, make huts whether in the woods or from old boxes and pieces of tin on empty lots. The raiding games all recognize the homing instinct. The child's room is thus partly a home or place of refuge, and it is partly a fortress . . . [It] is also an extension beyond the treasure box of the assimilated world, another ring of the child's expanding sovereignty. Henceforth the line between what is and what is not himself will be at his room door.

[**Property as an instrument of the spirit.**] — Very important is the adaptation of the child's widening physical domain to the selective principle within him. If he is so environed that his spiritual hunger can find the material it needs, without starvation and without surfeit, the problem has been solved. The law and possibilities of ownership should be prayerfully considered to this end by every parent. True property is an instrument of thought, vibrant, responsive to the soul; a predestined outgrowth of the informing mind. As such it should be adequate, should fill in the invisible outline of personality at each successive stage. But beyond that it should not extend.

ACQUISITION AS EXPANSION OF PERSONALITY*

Naomi Norsworthy and Mary Theodora Whitley

The mere fact of ownership or possession is enough to make one exert all one's powers to retain acquisitions. One's ingenuity is never more taxed than when desirous of possessing some object be it article of adornment, something ministering to a hobby, a job, or a piece of information. Everything in life may be claimed and is claimed by this instinct, and the pursuance of "my" in any situation adds a power that is difficult to measure. It is "my" home and possessions, "my" family, "my" friends, "my" reputation and interests, "my" business concern, "my" town, "my" state, "my" country, and the same sense of possession often spreads so that it includes opinions, principles, ethics, and religion. . . .

* From *The Psychology of Childhood*, Chapter III, "Tendencies Resulting in Action." The Macmillan Company (1918) 1924.

This tendency to reach out, to possess, to hold, often hinders good judgment and obscures the issues of life. It is frequently antagonistic to the social instincts of sympathy and kindliness; and because of these facts, teachers have usually refrained from appealing to it, have ignored its existence as far as possible. Nothing could be a more unwise treatment. Its very strength and persistence make such a manner of dealing with it futile, indeed often harmful. As a natural tendency it necessarily precedes the social instincts. One's value as a citizen depends on one's possessions, not only material, but intellectual and spiritual as well. An individual must have possessions worth while, must be something worth while, before he will be much worth while to others. The instinct of ownership is the necessary foundation for all personal value. It should then be appealed to, made use of in the home and school. It is a perfectly legitimate motive, and a valuable source of power. True, an adjustment is necessary between this nonsocial and sometimes antisocial tendency and the social tendencies; but this adjustment comes only through much experience and teaching.

MOUNT YOUR HOBBY*

Charles William Taussig and Theodore A. Meyer

[**What is a hobby?**] — The dictionary defines "hobby" as "something in which one takes an extravagant interest." To have an extravagant interest in almost anything is to have a decidedly pleasant view of life. Happy is he who has a hobby, something with which actively to occupy the mind of the work-a-day world.

Hobbies, intrinsically, may or may not be of value. It matters little anyway, for it is not the intrinsic value that counts, but rather the beneficial effect on the subject.

There are three fundamental types of hobbies: the acquiring of knowledge, the acquiring of things, and the creating of things. These groups are not well defined and are at times intermingled, but they do stand out as the fundamental types.

The acquiring of knowledge as a hobby is the serious work of the world's greatest thinkers. Socrates, Plato, Newton, and Darwin found learning to be the all-absorbing passion of their lives. In the case of Darwin, however, there is also to be found the "extravagant interest" of acquiring things or collecting.

The second group is perhaps the most general type of hobby manifesting itself at the present time. Collecting is one of the earliest of all hobbies, and can be said to be almost instinctive. There is little doubt that collecting, or the desire to acquire things, is often nothing more than a perversion of the instinct of acquiring the means of sustenance. It has been handed down through the ages from the prehistoric man who collected sea shells and pebbles for no apparent purpose, to the man of enormous wealth to-day who collects a great library of

* From *The Book of Hobbies*, Chapter I, "Stamp Collections." Minton Balch and Co. 1924.

rare books which he has neither time, inclination, nor ability to read, and which he keeps under close lock and key, unthinkingly keeping away those who would be able to utilize the great collection. Yet, with rapture and overrunning enthusiasm, this man will pace the floor of his secluded library gloating over his magnificent collection. Perhaps you may think we have painted the picture of a selfish, unmoral man, but on the contrary he is probably the most human, righteous and kindly of men, mellowed in fact by the seemingly selfish, purposeless hobby of collecting books. No matter what his troubles of the day may be, they softly slip away in the warm glow of his fireside, as he lovingly fondles his latest acquirement, perhaps an ancient Greek manuscript which he cannot read, but which he holds in his hand with something of the affection and love which he might bestow upon his little child.

No, there is something mysteriously fine about collecting books or almost anything that is in no wise related to the intrinsic value of the object. Of course, we cannot for a moment overlook the real value of a collection of books, and despite himself, the collector will eventually give to the world something of permanent value. This is but a secondary consideration to the collector himself, if a consideration at all.

[**The creative impulse.**] — The third group of hobbies is that of creating things. It could almost be pared down to creating things with the hands. It is this type of creative work that usually develops into a hobby. Manual work while often an arduous vocation, is usually a most attractive avocation. To create with one's own hands something out of apparently nothing is a great satisfaction. To watch it gradually grow under the magic of our touch has something of the miraculous and leaves with us a sense of power, which, though developed in the creating of something useless, may be used, and is often used, in the development of something serviceable. The creative hobby is found in children almost in the same degree as is the collecting impulse. It is particularly desirable to encourage in them the will and ability to create with their hands. It is decidedly an effective deterrent to the destructive urge present in most normal children. It incurs in them a wholesome respect for that which has been created by others.

To our mind, the most pathetic utterance of man, which unfortunately is heard so often, is, "I have nothing to do." Be the man who so remarks as rich as Crœsus, as powerful as Cæsar, or as wise as Solomon, he can be classed but a failure. His failure lies in his mental attitude, which permits even momentarily, life, with its myriads of duties, pleasures, and amenities, to pall. The man with a hobby never has "nothing to do." Rather has he far too little time to do all that he is moved to accomplish. Frequently, he feels the scourge of ambitions impossible of fulfilment, but it is a scourge that causes wistful smiles, rather than bitter tears. . . .

[**The cost of a hobby.**] — That indulgence in a hobby does not require extraordinary means will perhaps be a surprise to many, a particularly pleasant surprise to those who have let this bugaboo deter them from yielding to their fancy. "But," we hear from the many, "it takes money to buy books, to

collect etchings, to accumulate antiques, to build furniture, to make radio sets, to buy materials for weaving tapestry, and for the many other things we desire to do." So it does, and there *are* some hobbies with which the man of average means cannot play. The most expensive of fancies are those in the "collecting" group. But, fortunately, interest and enjoyment in a hobby are not in ratio to the amount of money spent. Quite as much pleasure is had by the collector of modern first editions at reasonable prices as is had by the more advanced collectors who find their Eldorado in a first edition of Shakespeare.

And looking at the question of cost from another angle, how few people really know the true value of money or how to spend it. "Keeping up with the Joneses" is the theme of much family budgeting. Emerson so wisely says, "A man's money should not follow the direction of his neighbor's money, but should represent to him the things he would willingest do with it. I am not one thing, and my expenditure another. My expenditure is me. That our expenditure and character are twain, is the vice of society. We must not make believe with our money, but spend heartily and buy up, and not down."

[**An avenue to freedom.**] — And so, with proper appreciation of the value of a hobby and a revaluing of his fortune in terms of happiness and goodness, he will find himself quite capable of following his fancy. . . . Neither a man's vocation, nor his avocation, should be anything in which he has not a deep-seated and ardent interest. Unless there be an abiding urge to do something, to study something, or create something, there can be no personal gain. . . .

Although not essential, it is wise to embrace as a hobby a subject that has little relation to the vocation. Usually, a man's business is unfortunately chosen solely for economic reasons, and if he is dependent entirely upon it, he needs have at times concern for its welfare and his own. This does not lead to the beneficent tranquillity of mind that is to be found in the real hobby, so rather should he seek as his avocation something that will enable him to shake off at times the worries and troubles of business. This is one of the most desirable features of having a hobby.

NATURE HOBBIES*

Marion D. Weston

Riding a Nature Hobby is an excellent way to have a good time out of doors; not the only way of course, for skating, swimming, base-ball, and your other favorite sports all have their place. As hiking becomes more and more popular, people are learning that the tramp with a definite goal of real interest to the hikers is enjoyed much more than the aimless ramble. The greater the number of things we enjoy doing out of doors the better. The boy or girl who is developing an intelligent interest in all phases of outdoor life, is laying up untold stores of health and happiness for future years. If to this well-

* From "Have You a Nature Hobby?" *Nature Magazine*, 18: 177–192. May, 1922. Washington, D. C.

rounded interest is added an insatiable curiosity to learn all that there is to be known about some small field of Nature we have a game which many find the most interesting they have ever played. . . .

If you enjoy collecting things and have even a small garden spot you will find it most interesting to bring home wild plants from the woods and fields and try to make the little newcomers feel at home in your own yard.

THE DABBLING ADOLESCENT*

Sidonie Matsner Gruenberg

[**Interest shifts.**] — Young people, if they are fairly healthy, and if they are fairly free to find out about what's going on in the world, and if they are fairly free to go in for things that do not bring in money — or especially if they have a chance to go in for things that cost money — are quite sure to take up one absorbing hobby after another. It is just because there are so many excellent things to do on the solid earth — and in the air, and in the water, too — that they need several years to find out which they would rather do. And apparently the only way to find out is by trying the feel of them.

Of course this is rather expensive, because the things with which they clutter up the house are never entirely used, and they form a worthless collection of junk to mark the meanderings of the adolescent mind. But the most serious concern is not the cost in money, for, where the money is not to be had, we find the same tendency to jump from one interest to another. The fear of adults is always that the growing girl or boy will become a dabbler, a "rolling stone," an unsettled wanderer without a definite purpose or goal. And it must be admitted that once in so often a person reaches years of maturity without finding a guiding aim in life.

[**Experiment needed.**] — For the adolescents in general, however, this rapid shifting of interest seems to be the normal manifestation of the rapid development going on within the organism. The changes in the nervous system bring forth a multitude of new interests and new impulses which simply cannot all find expression at the same time, and which crowd upon each other in such fashion that now one and now another breaks to the surface in quick succession. . . .

It does seem so inconsistent, so unreasonable — and what will it all lead to? But a more serious problem is the adolescent who does not show a wide range of interests, who does not experiment with many possibilities.

The danger for most children during this period of growth and impression is not in the dissipation through contact with too many lines of interest, but in the lack of opportunity to try out enough to give a broad sympathy, a far outlook, and a wise choice of permanent interest. . . .

[**Positive effort.**] — It should be part of our aim in the training of children, to keep open for them all the lines of communication with ideas and feelings

* From *Sons and Daughters*, pp. 75–79, 219–222. Henry Holt and Co. 1916.

that may come to them. But this is not a passive affair. Ideas and feelings do not come to us because we sit still. The child must learn to go forth and meet the new experience a little more than half way. We must cultivate the attitude which seeks satisfaction in doing, in overcoming difficulties, in solving problems. We must discourage contentment with passive comfort, always receiving and never giving, with "letting well enough alone." This will mean retaining the versatility and the aggressiveness of youth as long as possible.

[**Value of intense interest.**] — In practice we shall frequently be annoyed by the intensity with which the girl or boy will pursue a hobby. We realize only too well the folly of setting the heart too firmly upon this or that. But the child is, in these things, often wiser than his elders. For whatever is worth doing at all is worth doing with all the energy and enthusiasm that can be mustered. Nor must we determine for the child what is worth doing. We have learned the folly of air-rifles or of reading all the writings of a favorite author, not by suffering any injury from these interests, but by finding things that were better worth while. And the children need not take our preference for etchings or first editions as indicating absolute values. At every stage the child should be encouraged to pursue his hobby as intensively as time and chance permit. Some hobbies will last but a short time; others may last into the riper years. But in any case these represent interests that carry with them motives for application and effort and sacrifice, and they carry with them stimulation and recreation that are nowhere else to be found.

[**Need for free selection.**] — The selection of a hobby, like the selection of an occupation or a spouse, must always be left to the person most concerned. You may give your children a certain bias, however, that will have a value proportioned to your judgment and insight. As it is legitimate to have a prejudice against your son's becoming a bartender, or your daughter's marrying a gambler, so you may tolerate certain types of hobbies and discourage others. But these influences should not rest on our own tastes; there are more fundamental considerations. Thus, you and I are fond of going to the theater, but it is better for Louise to cultivate amateur theatricals than a fascination for a popular actress. It is better for Harold to play baseball until sunset than to become a baseball "fan." Again, it is for the child to determine whether he will make a study of medieval armor, or of orchids, whether she will conduct a propaganda for the protection of the native birds or for clean streets.

[**Doing *vs.* having.**] — Parents should realize the advantage of a hobby that calls for some kind of activity, over one that involves being entertained or amused. In the same way, a hobby that means *doing* something is more valuable than a collecting hobby, which means *having* something, although this is better than no hobby at all.

On the physiological side, entertaining a wide range of interests means keeping a large part of the brain surface in action. Specialization of interests, in the narrowing sense, means allowing a large part of the brain to remain unused, and thus to be a possible source of ill health.

XIII. CLUBS AND GANGS

Civilized living means community living. Sooner or later the child draws away from the protection and the limitations of the home and learns how to live with other people, people of many kinds, people with diverging interests and outlooks and values. He must learn to hold his own; but he must learn also when to yield, and how to yield gracefully, to the rights of the community as well as to those of individuals. The spontaneous groupings into which children tend to associate themselves, usually just before puberty, are significant instruments in the process of becoming socialized.

The gang, in the past, has earned for itself a very bad name. It had come to mean an antisocial group, preying upon the community, degenerating sometimes into vicious if not criminal practices, flaunting the decorum and dignity of the community and at times also its decencies and moralities.

The studies of Puffer and otners, when combined with later studies of individual delinquents and analyses of various personalities, point to the significance of the gang and to its inherent possibilities for education in civilized living. We learn that the urge to "belong" means that the child is coming to value association with others and also to discriminate. He has been with other people from infancy and has discovered himself through experience with them, and he has taken them more or less for granted. Now he begins to select his associates and to attach importance to them, as individuals and as a group. He is extending his own personality by identifying himself with the group of his own choosing; and it is through such identification that one may eventually become a "good citizen."

The public opinion of the gang is concrete, unmistakable as to its meaning. It makes itself keenly felt, whether favorably or otherwise. Its pressure is irresistible. At the same time the individual contributes to it in proportion to his energy and initiative. Leadership is open to the most effective leaders. The child accepts the right and wrong of this public opinion without resistance, since he is himself a part of it; he understands it; it is in fact his very own.

The loyalties and devotions of the gang, although they are often enough in conflict with the re uirements and conveniences of adults, or

even with the majesty of the law — that is, of the statutes — are distinctly social and moral. They are sufficiently intense to make possible high degrees of effort and sacrifice. If the loyalties and devotions remain too often on the level of the gang and permanently in conflict with the common welfare, the fault is rather with the larger community which has failed to attach these social and moral feelings to the interests of the larger group, to guide the young people into higher techniques of social living, to stimulate their growth to higher levels of purpose.[1]

We must not expect the child to jump from the individualism of his recently discovered selfhood to the intricate relationships of adult community life, with all the attitudes and skills for social living ready made. The gang furnishes the intermediary apprenticeship. Boy and Girl Scouts, Woodcraft, Campfires, Pioneer Youth, and other similar undertakings attempt to utilize the interests and impulses uppermost at this period for purposes of social adjustment. At this time the child is most keenly interested in adventure, both spiritual and physical, in daring, in fortitude, in loyalty, in sacrifice, in steadfastness, in uprightness. Now the boys and girls can become habituated in the virtues of the pathfinder, the scout, the pioneer, the volunteer servant of the common good, by making the exercise of these virtues pleasurable, by endowing them with the approval of that public opinion for which the child has a genuine regard.

This understanding of the child's feelings and impulses and of the educational possibilities inherent in them is the basis for the rapidly expanding movement that shows itself in the various directed groupings for self-discovery in social relationships. These movements deserve support for their high purposes and practicable nature; they call also for careful watching and wise leadership just because of the tremendous influence they may exert.

There is no certainty that children excluded from opportunities to experiment in social living among their peers will fail to adjust themselves to the larger society; nor is there any guarantee that experience in these directed clubs and gangs will produce always the kind of citizen needed in a progressive democratic society. In the latter case so much depends upon the judgment and sympathy and attitudes of the leaders. The club lends itself quite as well to routinizing primitive virtues and fixing loyalties on a narrow plane of hostility to strangers, to new ideas, to divergent political or religious beliefs, as it does to the stimulation of growth and development. We cannot, however, ignore the tendencies represented by the spontaneous gang, nor can we hope to attain any-

[1] See also "Team play and loyalty," p. 77.

thing of value by merely combatting their unpleasant or undesirable manifestations. The facts point to the existence of powerful drives; it is our business to recognize them and to guide them into channels that promise most for the individual and for the community.[1]

CHARACTERISTICS OF THE GANG *

J. Adams Puffer

Organization. — In respect to definiteness of organization, there are marked differences in gangs. Some are loosely knit and of short duration; others are select in their membership and rigid in their structure, so that they last through several generations of boys. Some gangs are autocratic, some democratic — this, naturally, depending largely on the leader.

[**The name.**] — Most of the gangs have names — The Hicks Street Fellows, The Bleachery Gang, Morse Hollow Athletic Club, Wharf Rats, Crooks, Liners, Eggmen, Dowser Glums. Most have a regular time and place of meeting, rules and officers, though only a few have written constitutions and by-laws. Moreover, the definiteness of the organization and the *esprit de corps* seem to be quite independent of any formality or written code. Two organizations may be equally definite and forceful; and yet one may have its organization explicitly in articles of federation, while that of the other is covert in the brain and muscles of its leader. . . .

[**Sex differences.**] — Apparently, a boy joins a gang and a girl does not for precisely the same reason that he throws stones while his sister tends lovingly the dolls that are beneath his contempt. Each is doing instinctively, as a child, for play, what grown men and women have been doing these thousand years for work. . . .

[**Educational possibilities.**] — We take the boy at an impressionable age, an age during which he is probably more plastic than at any other time of life, either before or after. We can lead him through the group life of the gang, while the social instincts are being born and fashioned, into a social life of the highest ideals and devotion; or on the other hand, we may make him an unsocial or an anti-social being for life. The gang is a natural and a necessary stage in normal development. Carefully watched and wisely controlled, it is both the most natural and the least expensive instrument that we can employ to help our sons through one of the most critical periods of their lives. Nine tenths of the gang's activities depend on primitive instinctive impulses, which cannot be suppressed, and which need only to be sanely guided to carry the boy along the path which nature has marked out and bring him

[1] See also Chapter IX, "Rivalry and Competition," especially the selections from O'Shea, p. 96, and Northsworthy and Whitley, p. 100.

* From *The Boy and His Gang*, Chapter III, "The Organization of the Gang"; Chapter VI, "The Anthropology and Psychology of the Gang"; Chapter XI, "The Virtues of the Gang." Chapter XII, "The Gang in Constructive Social Work." By permission of, and by arrangement with the Houghton Mifflin Company, the authorized publishers. 1912.

out at the end a useful citizen and a good man. The men who have been most successful in handling boys are precisely the men who have appealed most powerfully to those boyish impulses. . . .

[**Idealism of the gang.**] — The gang loyalty is by no means a loyalty to individuals only; it is a loyalty also to ideals. The boy refuses to "squeal" under pressure, partly to shield his fellows, but still more because squealing is contrary to the boys' moral code. . . . The good citizen of Boyville will shield the offender, and persistently refuse information to the authorities. It is far better to let boyish offenses go unpunished than to encourage boys to violate their native moral instincts; and all great schoolmasters have acted on this principle. . . .

[**Exclusion from the gang.**] — The explanation of why only three in every four boys are in gangs, instead of four in every four, is largely that the fourth boy is one whom the gang will not have. Some boys, of course, are solitary by nature, — sensitive, retiring boys who do not care for the rough life of the gang, but prefer to play alone, with one companion, or with girls. Some, too, grow up in isolated neighborhoods where there are few other boys of the same age. These lose, perforce, the education that comes in the gang. But the rest who stay out of the gang, stay out for the gang's good. They have been trained, often against their nature, to do violence to the gang's standard of honor. They fail to pass through the normal development of human males; they lack a fundamental virtue and their fellows will not trust them, boy or man. . . .

[**Learning to live with others.**] — Only by associating himself with other boys can any youth learn the knack of getting on with his fellow-men; acquire and practice coöperation, self-sacrifice, loyalty, fidelity, team play; and in general prepare himself to become the politician, the business man, the efficient citizen of a democracy. . . .

We must not forget that the instinctive vices of the gang tend largely to be self-limiting, so that the boy, even if left entirely alone, would outgrow most of his faults. Not so with the gang virtues. The impulses to loyalty, fidelity, coöperation, self-sacrifice, justice, which are at the basis of gang psychology, are powerfully reinforced by nearly all the typical gang activities. . . .

Tact, adaptability, skill in getting on with one's fellows, are among the minor virtues of the gang. So, too, is the spirit of democracy, for the gang is as little snobbish as any human group. It puts a premium also on strength of body, while most of its typical activities involve wholesome physical exercise which most boys would hardly undertake alone.

[**Courage.**] — Last, but by no means least, of the gang virtues comes courage. Now courage and self-reliance are partly a matter of habit. One simply gets accustomed to danger, and so meets it without fear, knowing that he can take care of himself. Baseball and football are both brave games. The boy who is afraid to get his shins kicked, or to stand up to bat against a swift pitcher, has no place in either. Fighting often demands high courage, especially in group fight, where one cannot stop to pick an opponent of his own size but must stand

his ground against all comers, little and big. Then there are also the "stunts" and "dares" which the members of the gang give one another. These also are a constant incentive to bravery. The coward is a social outcast who has no place in the gang; but the timid boy stands to have his timidity shamed and practiced out of him. For the naturally brave boy in the gang, courage soon becomes a fixed habit. . . .

[**Constructive possibilities.**] — Of all present-day organizations for the improvement and the happiness of normal boyhood, the institution of the Boy Scout is built at once on the soundest psychology and the shrewdest insight into boy nature. The Scout Patrol is simply a boy's gang, systematized, overseen, affiliated with other like bodies, made efficient and interesting, as boys alone could never make it, and yet everywhere, from top to bottom, essentially a gang.

THE PSYCHOLOGY OF THE CLUB*

Louis D. Hartson

[**Boys' and girls' clubs.**] — The club makes its appearance as early as 7 or 8, both with boys and girls. Of the spontaneously formed clubs reported by Sheldon 45% were of girls. Of the girls in Professor Monroe's classes 91% had been members of clubs. In a personal letter from Miss C. I. MacColl, of Christodora House, a settlement on the lower east side of New York, the statement is made that "girls in our neighborhood group as do the boys. In the past three months I have had applications from fifteen different groups of girls from fourteen to twenty years of age wishing to come to Christodora as organized clubs." The ages when clubs were most frequently found among boys were 10 to 14; this corresponds with the time when they are most often formed among girls. After that age they do not cease to be members of clubs but they usually join organizations which they find already in existence, the permanent adult or student clubs. The number in the gang averages 9 or 10. We have no figures on the size of the boys' club, but as the gang organizes itself into the club we may infer that the two are the same size. The girls' clubs were found to average 8 members, they increase in size with age, the adolescent clubs having an average of 12. In external formation, then, boys' and girls' clubs are very similar. The difference between them is in their activities and purposes. This correlates closely with the fact that clubs formed before the age of 13 or 14 are but incidental to the regular group activity. Nine tenths of the clubs reported by the normal school girls were of this character. Boys' clubs spend their time mostly in physical activity; girls have clubs for sewing, dramatic productions, tea parties and social good times. Girls say that they form clubs for a good time; boys say that they are for baseball, which is saying the same thing since boys play ball for a good time. The activities of either sex could be carried on without the club. In girls the exclusive clique spirit is stronger

* From *The Pedagogical Seminary*, 18: 353–414. September, 1911.

than in boys. Secrecy is prominent among girls under 11 years; it is not so strong among boys. After the age of 14, clubs appear which are not mere incidents in the play life; a new basis of membership is introduced. . . .

The mental conditions for the formation of the club. — The first condition necessary to the formation of the club is that there be individual differences in the capacity of leadership. In group activity it is necessary that there be some one to take the initiative, to be the leader. . . . The second condition necessary to the formation of the club is congeniality of interests. . . . The interests of young children are similar, since temperament is but dimly manifest until self-consciousness develops, and because early experience is approximately alike for all. The children of master and slave play together in perfect harmony. In later years social equality is impossible because of the disparity of interests. Similarity of experience or training, in individuals of similar native interests, tends to give approximately the same level of ability, the same level of apperceptive mass; ability to understand the same ideas, to appreciate the same art and literature and music, to carry on the same activities of work and play; opportunity to enjoy the same social status, to see about the same amount of the world, to mix with about the same class of people; in sum, to develop the same interests. A club to be durable must be formed by people having the same type of interests. . . .

Mental forces produced by the club. — . . . . Of those forces resulting from club organization, the one of most general significance is that known as the social stimulus. Although produced by the club it is not peculiar to it, but is in evidence in any group, whether or not the group is organized. . . . In the club this group stimulus is always present and of greater power than in unorganized groups. In the presence of the members of his own club a man is stimulated to accomplish feats and rise to supremer achievements than would be possible for him to reach in any other presence. . . . Of much greater significance are the other forces to be considered, viz., *esprit de corps*, honor and friendship. . . .

[Caste feeling.] — The general observation is that the caste spirit is stronger in girls than in boys. May not the explanation be, that, whether or not the girl of today is born with that disposition, woman's experience has been such as to develop the caste spirit in her to a higher degree than man's experience has in him? Through group activity boys and girls alike develop a feeling of superiority as respects their own group. Boys' groups, however, compete constantly with other groups, and the process that went on earlier between individuals now transpires between groups, and a feeling of superiority is developed for a still broader group. Team spirit develops into school spirit, and the spirit of loyalty to, and assumption of, superiority to the school is greater than that to the class. This experience is not generally true of girls. Their loyalty to, and ascription of, superiority to their set remains much stronger than that of boys, and the accompanying fact is that the girls' set has little opportunity to compete with and be defeated by other sets. It has been the writer's experience in a coeducational college that the girls support their class basket ball team as loyally as do the men, but that it is harder for them to coöperate with their

erstwhile opponents to compete against another school than it is for the boys. An incidentally concomitant fact is that girls take defeat harder than do boys. Many other manifestations of this phenomenon might be cited, such as woman's greater family pride, interest in genealogy, and the like. Unless by competition with other groups our group becomes disillusioned, this spirit of superiority acquires a very narrow character and a clique is formed. Girls rise to the level of loyalty to a small group and tend to remain on that level, because of lack of competition between groups, while boys get over their clannishness by competition with other groups. . . .

[**Honor.**] — Another psychic force peculiar to the group, and of particular importance as a product of club organization, is honor. . . . It is not generally the rule, however, that honor and morality are antagonistic; they usually supplement and reinforce each other. One of the most common features of honor among clubs is this rule which demands that fellow members be assisted in times of adversity, sickness, or death in the family, be supported when running for office in the community, be defended from calumny, and shielded from justice. It is not honorable to "snitch," or inform the authorities, when one of the gang has done wrong. The gang have their own standards of conduct which concern the essential features of their mutual relationships, and to transcend one of these rules is often to lose membership in the gang. . . .

[**Friendship.**] — Another factor, the effect of which is to solidify the once formed group, is friendship. To be sure, in children's clubs a condition of friendship exists before the club is formed. . . . However the feeling of attachment may arise, its intensification is accomplished by the same process the race experienced, namely in service. Service has another effect, moreover, which it is important to consider in this connection. The mental process of doing things for another person develops not only a feeling of attachment for that person, but a subordination of self to that person. So also when one works for a group or for a cause. Thus friendship and *esprit de corps* each presuppose an *Einstellung* that is characterized by unselfisness. It therefore becomes more evident that these two forces do have a powerful influence in the preservation of the club.

SOCIAL INSTINCTS AND INSTITUTIONS*

G. Stanley Hall

[**Joining groups influenced by example of elders.**] — American children tend strongly to institutional activities, only about thirty per cent of all not having belonged to some organized group. Imitation plays a very important rôle, and girls take far more kindly than boys to societies organized by adults for their benefit. They are also more governed by adult and altruistic motives in forming their organizations, while boys are nearer to primitive man. Before ten comes the period of free spontaneous imitation of every form of adult institu-

* From *Adolescence*, Volume 2, Chapter XV. D. Appleton & Co., New York. 1904.

tion. The child reproduces sympathetically miniature copies of the life around him. On a farm, his play is raking, threshing, building barns, or on the seashore he makes ships and harbors. In general, he plays family, store, church, and chooses officers simply because adults do. The feeling of caste, almost absent in the young, culminates about ten and declines thereafter. From ten to fourteen, however, associations assume a new character; boys especially cease to imitate adult organizations and tend to form social units characteristic of lower stages of human evolution — pirates, robbers, soldiers, lodges, and other savage reversionary combinations, where the strongest and boldest is the leader. They build huts, wear feathers and tomahawks as badges, carry knives and toy-pistols, make raids, and sell the loot. Cowards alone, together they fear nothing. . . .

[**New motives develop toward puberty.**] — At twelve the predatory function is normally subordinated, and if it is not it becomes dangerous, because the members are no longer satisfied with mere play, but are stronger and abler to do harm, and the spice of danger and its fascination may issue in crime. Athleticism is now the form into which these wilder instincts can be best transmuted, and where they find harmless and even wholesome vent. Another change early in adolescence is the increased number of social, literary, and even philanthropic organizations and institutions for mutual help — perhaps against vice, for having a good time, or to hold picnics and parties. Altruism now begins to make itself felt as a motive. . . .

[**Characteristic manifestations in student life.**] — The history of student life shows clubs, sodalities, associations of almost every conceivable sort and for all purposes, clubs for eating, drinking, hunting, hawking, for every kind of indoor and outdoor sport, for the most diverse political ends, for all social reforms, clubs representing nearly all of the great philosophical systems — stoics, cynics, skeptics, platonists, scholastics, idealists, and all the rest — clubs for banterers, for drinking young hyson and stronger beverages, gambling, shooting, fishing, acting, playing practical jokes, nonsense clubs, wine clubs, essay clubs, associations for dietary reforms, for fighting, for wearing plain or eccentric clothing, elaborate organizations for those who stand lowest in class, clubs of liars, of petty pilferers, associations for charity, for the propaganda of religion and even atheism, for traveling, for every special branch of intellectual culture, and interest both in the sciences and the humanities, and besides these, hundreds of pure funk organizations with nothing about them but high-sounding names and officers, who never had a meeting and were never elected — all these bear witness to the intense pleasure at this age of life of simply being together or even imagining social bonds. It is a pathetic fact that ethical teaching which should so largely consist in developing the social instincts aright has not treated and [has] but slightly influenced this side of academic life, which for the average student perhaps outweighs all other college influences, but still hovers about abstract theories of morality. . . .

[**Value of belonging.**] — Every adolescent boy ought to belong to some club or society marked by as much secrecy as is compatible with safety. Some-

thing esoteric, mysterious, a symbolic badge, countersign, a lodge and its equipment, and perhaps other things owned in common, give a real basis for comradeship. This permits, too, the abandon of freedom in its yeasty stage, which is another deep phyletic factor of the social instinct. Innocent rioting, reveling with much Saturnalian license, vents the anarchistic instincts in ways least injurious to the community and makes docility and subordination more easy and natural in their turn. Provision of time and place for barbarisms or idiotic nonsense without adult restraint helps youth to pass naturally through this larval stage of candidacy to humanity. . . .

[**Symbolism of rituals, etc.**] —Such an organization must select its members according to the natural instincts of affinity, with power to discipline or expel those found too unlike-minded. It will probably have a ritual of initiation, with grades of apprenticeship in the novitiate, the lowest involving much subserviency, almost like that of a villein to a manorial court, and all perhaps symbolic of putting off the old isolated self by regeneration into a larger new social existence. There will be intense consciousness of the machinery of organization, constitution, by-laws, rules of order and procedure, debate, election, and perhaps ritual, etc. If such a spontaneous organization of boys in the later teens has any inner work, it is not likely to be the direct promotion of piety or any form of outside social service, but is most likely to be dramatic or musical, or, next to this, to promote debate or declamation, and to cultivate a peculiar form of group-honor, the best form of which for this age . . . is the idealized court of King Arthur.

XIV. BOOKS AND READING

The many and diverse appeals to the buyer of books for children tend to confusion, with the frequent result that recourse is had to the old and safe standards of our own earlier years. We know that our reading did not hurt us, and assume that therefore it is harmless for the new generation. And it is true that the reprints of older juvenile literature represent the survivors in a rather severe selective process. Yet in many respects the newer books written especially for children have decided advantages over their tried competitors holding over from the past.

In the first place, the purposeful books of the past were written down to the children, for the most part — diluted and simplified versions of adventure and moralities conceived essentially from the adult point of view. With our greatly extended knowledge of the child's mind, the new juvenile literature is better adapted to reach the interest, the understanding, and the emotions of the young reader. It is, so to speak, more "efficient" as a vehicle for transmitting ideas or moral impulses.

In the second place, the external world of human relations has changed so rapidly within the lifetime of the parents of the children that books which were adequate sources of information concerning foreign countries, how people live, industrial conditions, and so on, are no longer adequate — except perhaps as historical documents. As sources of information books of travel, books on man's achievements, even fiction, must be quite recent — if the child is to get from them a reliable picture of the social world in which he lives.

In the third place, much of youth's reading is to meet the normal craving for a rationalized interpretation of nature's mysteries; and the older books necessarily overlooked the great discoveries in every department of science. There are comparatively few children who will care to pursue science and nature studies intensively, but every child should at least have the opportunity to have his questions answered in accordance with the best knowledge of our times. The newer books in this field are not only more valuable because of the more trustworthy information they contain, but they are coming more and more to be characterized by a modern point of view.

For the youngest readers the book may be a source of entertainment, since the story interest is prominent; and reading becomes for many a passive indulgence and absorption that calls for little action or thinking. But while it is legitimate to use books, both for younger children and for older ones, as a form of entertainment, the danger suggested lies not in the books themselves, but in other elements of the child's environment — such as the absence of stimulus or opportunity for interesting activities. The other purposes of reading can be more easily attained if the child early becomes familiar with the use of books; and this is made possible if the association with reading is from the beginning a pleasant one.

The story interest of the young child is used almost unconsciously the world over as a channel for stimulation and inspiration. The fairy and folk tales of all countries satisfy the interest and at the same time suggest crude interpretations of nature and elemental aspirations, in keeping with the child's mental and emotional development. They reach the child's imagination at a time when he can easily project himself into the personality of the hero, and thus enrich his vicarious experience in a large variety of relations and situations which he can appreciate.

That the "morals" of many fairy and folk tales are at least dubious, is generally recognized. They do indeed often teach the triumph of virtue, but quite as often the advantage of deceit and cunning. Or they teach that might makes right quite as often as the converse. Nevertheless, these primitive stories have their value, although they should not be administered in excessive quantities. . . .

Guidance in reading is not a thing by itself. Like other efforts to direct children's development, it must take into account individual differences, capacities, and needs. Reading must reach the interests of the child as he is, not as we think he ought to be. And it must be opportune, not only from considerations of local and temporary conditions and events, but from the viewpoint of the child.

Much thought has been given to building up a new literature for younger children. More needs just now to be given by parents and teachers to the introduction of the young reader to literature intended primarily for adults. The transition from the reading of juveniles to the reading of books intended primarily for adults is beset by special difficulties, like all other transitions in the child's adjustment. Parents and teachers should face the situation with more assurance, however, than is common. We do not seem to hesitate about placing in the hands of young people the adult novels of a past generation — those of Dickens, Scott, or Victor Hugo. Neither should we fear to give them

access to the good novels of contemporary writers. Many of these may contain a great deal that is "over the head" of the boy or girl; but there is no harm in that, and in general we must recognize that a high-grade piece of fiction will contain more than most readers can immediately assimiliate. The young reader will get what he can, and he is likely to ignore what does not concern him.

THE CHILD'S FIRST BOOKS*

ELSA H. NAUMBURG

The first picture book. — The first picture book should be untearable — that is, of linenette, strong cardboard, or rag. It should be well and strongly bound and well printed. The pictures, however, are more important than the text. They should be simple in outline, color and feeling, in order not to confuse the child. The world pictured should be one with which he is familiar — a world of motor action, of sounds, smells, tastes, feelings, and contacts. The colors should be bright and harmonious, preferably of the poster type.

Why not begin at once to develop the aesthetic side of the child? One of the surest ways to achieve this is to give him pictures that are well drawn, true to nature and, if possible, possessing beauty and distinction. Pictures should give the child a chance to exercise his imagination. At this age it is more important for him to create his own story than to have the contents of a printed page read to him.

At the age of two or three and until the child has his feet firmly planted on the ground we must eliminate the grotesque or weird element. But even this is not as injurious to the child as the cheapness and crudity of many of the picture books which flood the market. If we parents realized how unconsciously pictures affect the child's personality, his tastes, and later experiences, we would not only reject the vulgar and inartistic picture books, but we would set about creating a demand for the production of books for little children with the right psychological and artistic standards.

The first story book. — When we come to story books for the two and three year old, we find that the right type of story material is limited. Mrs. Lucy Sprague Mitchell in the *Here and Now Story Book* has suggested a new approach to children's literature. Her collection is built on stories actually told by the children themselves about their own experiences and adventures. The first stories for children should be short, and simple in plot. They should have dramatic sequence and action, and should be suggestive and give scope to the imagination.

Mother Goose should be a part of every nursery library. Its joyous rhymes and jingles have stirred the imaginations and trained the rhythmic sense of countless generations. They bring to the child vivid phases of life.

* From *Book List for the Pre-School Child.* Child Study Association of America. 1925.

Besides the fact that they are essentially human, their sheer absurdity gives them a unique place. Little children have a decided sense of humor which we have not stressed sufficiently in the nursery. Believing with Professor Gesell that suggestion is all important and that we should "double up the children a little oftener with the joy of the purely funny," we have emphasized in our list stories which tend to cherish and develop the child's sense of humor, spontaneity and fun.

Recognizing the close kinship and affection of children for animals, we have tried to find merry animal stories which tend to develop sympathy and understanding for animal friends.

Books on transportation. — At four we see the child's horizon widening. Although his interest is still a motor one, he is moving out of his personal and restricted environment. He becomes interested in ships, wagons, trains, engines, airplanes, motors, tractors, and fire-engines. He wants to know about farmers, soldiers, shepherds, factory workers and the work of the world. The questions as to how we get our foods, how and of what we build our houses, of what and how clothes are made, are assuming great importance in the child's mind. The scarcity of books in English to meet this need is astonishing. The intelligent public must demand more books like Verral Lucas' *Four and Twenty Toilers*. Lucas' *Book of Ships* and Sheila Brown's *Merchant Ships and What They Bring*, might well be reprinted. We have no good book on the fire engine, since Wister's plates were lost in the war, and no good book on the radio or airplane. It is our hope that the need in this field of children's literature may find an inspired and early response.

Stories about real children. — By five or six, children are ready for good stories. They should not be too long or too complex; the preschool child likes simple, familiar incidents. He likes also an amount of repetition which is almost wearisome to the adult. He insists upon hearing the same story over and over again. Most children at five thoroughly enjoy a story told in a simple, natural manner. We suggest to both mothers and fathers that they practice storytelling as much as possible, that they speak in a soft, clear voice and use simple, direct language. The story hour will establish a lasting bond of sympathy which will grow with the years.

At the age of five or six, children begin to be interested in what others are doing and are apt to be critical if these others do not measure up to their own ideas.

FAIRY TALES*

[A modern question.] — In the educational world, the controversy between those who advocate and those who oppose the fairy tale seems unending. Most educators agree on the elimination of the "harmful" fairy tale, with its emphasis on horror, pain, cruelty, trickery, or brutality. Dr. Annie C. Moore, specialist

* From the Minutes of a Meeting of a Child Study Group. Published in the *Federation for Child Study Bulletin*, November, 1924, pp. 3–6. Child Study Association of America.

in Children's Literature at Teachers College, believes that the fairy tale must be carefully edited and selected, especially for the preschool child. It is important to know the child to whom the story is to be told and to consider its possible effect upon his emotional life. Stories for the very young child should deal with familiar and immediate things and so deepen and vivify his sense of his own relationships. Lucy Sprague Mitchell[1] in her *Here and Now* Stories, has aimed to do just that. Professor Moore feels that after the child has become orientated in his physical environment and has acquired a sense of social values, the well-selected fairy tale has a place. But stories of witches, ogres and wicked giants are likely to cause mental conflict and terror and should be eliminated from the reading matter of all young children. In his *Moral Instruction for Children* Professor Adler[2] also recommends elimination of harmful, superstitious, and immoral elements, such as the success of trickery and cunning and the kind of evil that is beyond the child's experience.

Professor Montessori,[3] whose crusade against fairy tales stirred the educational world a short time ago, feels that "the fairy tale plunges the child into the supernatural and merely prolongs his period of mental confusion," and "it develops his dread of reality and terror of the actual."

It is generally conceded that the finer type of fairy tale should be preserved, that it offers the rhythm — grotesque, weird, and droll — "that the child needs to rest him from the dangers and terrors that fascinate him." Professor George Partridge[4] of Clark University states, "Fear, imagination and ignorance make life hard for the child. In fairy tales, his own desires for himself are realized. It is his compensation for being little and helpless."

Most educators agree on retaining those fairy tales which emphasize the right social relationships in the larger life and the home; that dwell upon the obligation of keeping one's promise; that teach that kindness pays and that envy does not and that friendship toward men and animals has its own reward. The right kind of fairy tale will always have its place in education.

[**The nature of fairy tales.**] — From the psychoanalytic point of view, an analysis of fairy tales discloses their resemblance to dreams and to the fantasies of neurotics and psychotics.

Psychoanalysts, like educators, differ as to the value of fairy tales. Dr. Hug-Hellmuth[5] considers them valuable for the stimulation of the imagination. Dr. Brill[6] on the other hand, believes that they represent the abnormal gratification of desires, regression from all effort, the encouragement of primitive and

[1] Mitchell, Lucy Sprague — *Here and Now Stories.* E. P. Dutton & Co. 1921.
[2] Adler, Felix — *Moral Instruction of Children.* D. Appleton & Co. 1892.
[3] Quoted in an article "The Crusade Against Fairy Tales," *Current Opinion*, 72: 87–8, Jan., 1922.
[4] Partridge, George Everett — *Story Telling in School and Home*, pp. 51–52. Sturgis & Walton Co. 1912.
[5] von Hug-Hellmuth, Dr. H. — *A Study of the Mental Life of the Child*, Chapter IV, pp. 80–82. Nervous and Mental Disease Publishing Co. Mon. Series, No. 29. 1919.
[6] Brill, A. A. — *Fundamental Conceptions of Psychoanalysis*, Chapter XII. Harcourt, Brace & Co. 1921.

archaic thinking, and that they hinder normal development and adjustment to reality. Between these opposed views is the one which recognizes the value of the symbol as a carrier of energy, furnishing an outlet for otherwise suppressed psychic material. The creation of the symbol to satisfy some otherwise unfulfilled wish is the basis of artistic creation. Many children find in well-chosen fairy tales an outlet for their hidden complexes and desires, and the value and danger of these stories are similar to those of the movie and the drama.

[**The danger of fairy tales.**] — The first requisite is to study the child himself. He is first absorbed in himself and we must teach him to adapt himself to objective reality. If we offer him something which delays this adaptation and prolongs fantasy, we incur the danger of fostering maladjustments. It is at the time when a child is making his first step, that we offer him a fairy tale and we must be careful that he does not remain in the wishing stage in attempting to meet life — that he does not obtain in fantasy what the normal individual realizes actually. We must remember that the child is becoming divorced from himself, for the world outside him is creating a condition which makes it necessary for him to give up his former conceptions. The fairy tale may call the child back to the infantile stage. If it is difficult for the adult to meet the hard, cold world, so much more difficult is it for the child to do so and so much greater is the temptation to find refuge in a world of fantasy. In the fairy tale, the hero realizes his desires by wishing, rather than striving, and obtains his end by the aid of outside forces. Here is where the danger lies, for the child must be taught to obtain realization through real effort. We must remember that stimulus is commensurate with reaction. A fairy tale is acceptable only if the hero realizes his desires through his own efforts.

LITERATURE AND THE CHILD'S LIFE*

J. Rose Colby

[**Why literature?**] — To consider this problem intelligently, we must have a fairly clear conception of what children are when, at six or seven, they enter school; of what we want them to be when, at eighteen or nineteen, they leave school; and of what literature offers that at each stage of the course will serve the present need, and prepare for the needs of the next stage. . . .

[**Individuality and self-activity.**] — Every child is a developing human life. The most distinguishing feature of human life is self-activity, the power by which every human life turns on its environment, seizes from it whatever is available to suppy the wants already risen in its own inherent nature, and uses this in its own development. This activity does not wait for maturity before beginning its work. It begins with life, and by the time a human being is six

* From *Literature and Life in School*, Chapter II, "Literature and the First Four Years of School Life"; Chapter V, "Literature and Life After the Elementary Years." By permission of, and by arrangement with, Houghton Mifflin Company, the authorized publishers. 1906.

years old its characteristic life is already well under way. . . . Already mind and heart have begun the education of the will; desire and judgment have created ideals, and the will has begun to direct the life powers to attain them. So much we may say of any normally born and normally developed child by the time it is six years old and ready for school. And since this is true, and since neither the heredity nor the environment of any two children can be exactly the same, the result of all of this self-activity is something very different from that shapeless, plastic mass, "the child." A roomful of six-year-olds is a roomful of individual lives already widely divergent from one another in dispositions, powers, and ideals, and differing widely, therefore, in the degree and the kind of response they will make to any given environment. . . .

[**Literature as environment.**] — We cannot ourselves make boys and girls into men and women. We cannot ourselves by any travail enlarge the mental life of children and give to their emotional and moral life sincerity, nobleness, and sympathy. They must do it themselves. They must themselves grow into such fullness of life as their own natures render possible. All that we can do is to provide an environment that shall supply whatever elements are necessary to this growth, and supply these elements in such form that they can appropriate them, make them into thought and feeling and volition, into conceptions of the world, into attractions and repulsions, into acts and purposes — into the substance of their own individual lives. The special problem before us now, therefore, is, through literature, to create for children in the first years of school an environment that shall provoke and stimulate the sort of growth we desire. . . . Whatever life lies behind any group of children of six, whatever influences surround them, they are all ready to like stories, to be interested in persons, in animals, in the visible, animate life of the earth. They are more or less sensitive to rhythm, to tone, to color, and to form. They have distinct notions of goodness and badness, of justice and injustice, and more or less clear — perhaps I should say, in some cases more or less mixed — notions of what acts in their own conduct and in the conduct of others toward them come under these several heads. They admire and love ardently; they scorn and hate with equal ardor; and, though often right, they are not infrequently far astray in their choice of objects for this exercise of emotion. The conditions of their lives and their own temperaments have united in determining what these loves and these aversions shall be; and, as in adults, also, love on the one hand and aversion on the other have called into play impulses of imitation, construction, and destruction. These six-year-olds, that is to say, are living, each one, in a world of thought and feeling and action. Their worlds are smaller. They are not yet capable of such complexity of thinking, such fineness of discernment, such accuracy of judgment, as are adults. Their emotions are simpler, less mingled and conflicting. Their moral judgments are more direct and unhesitating, less hedged about by *ifs* and *buts* and *maybes*, and accordingly, are likely to be less generous than the judgments of adults.[1] Their wills are, of course, untrained

[1] Perhaps also, for the same reasons, in some respects less restrained or qualified. —Ed.

and less intelligent; they act more blindly, with less heed to obstacles and ways and means of accomplishing a purpose, and are more easily disheartened.

We have no desire to crush out any of these already established impulses, feelings, and activities in children, not even the feeling of scorn, the impulse to destroy. All that we desire is to give these true direction, to help them to a natural and healthy growth by providing opportunity for a natural and healthy exercise. . . .

[**What the child brings to his reading.**] — The knowledge of life already possessed by children of six or seven is of a varied sort. If their lives have run a normal course, they know by experience, by feeling, much of the meaning of family and home. They are familiar with the relations of father and mother and child, of brothers and sisters, of grandparents, uncles, aunts and cousins. They have some notion of marriage, of the relations of husband and wife, though they commonly think of these two as father and mother. They have felt some excitement, perhaps, in the celebration of a wedding among their own kindred or friends, have recognized bride and groom as persons of importance, centers of interest and attraction in the various festivities that cluster about the wedding. Possibly the more sensitive children of six have been moved to wonder by some vague sense of the mysterious, the romantic, in the matter. But they accept it as they accept the rising and setting of the sun, the presence of policemen on crowded crossings, or the going to church. Six years of the simplest conceivable life must also have provided children with some knowledge of neighborhood life, of business, of industries carried on in the home, in the field, in the shop. They already have made some classification, however imperfect, of men and women according to their occupations, and also according to their characters. They have heard some men condemned for dishonesty, for cruelty, for laziness, for inability; and others commended for honest dealing and kindness, for industry, skill, and shrewdness. And they themselves are ready to pass unhesitating judgments of such sort. Children of six have felt the tantalizing allurement of horizons, of long roads that stretch beyond their ken, and therefore may go anywhere and lead to unimaginable wonders. They have known the stimulus to do that springs from being forbidden to do. Within narrow limits they have recognized the relation of cause and effect, and, within these limits, they insist on rational explanations of things. . . .

[**Literature reflects life.**] — Luckily literature is so like life in its range that it can answer the needs, not only of old man and sage, but of mere novice in living. Out of the childhood experience of the race have come tales that forever appeal to childhood. All along the way, too, traveled by the race in climbing out of childhood, have been occasional men and women who have not forgotten the secrets of that early world, who have been able at will to look out of child eyes and behold again the child world. Most of these carry into their tales of the simpler childlike world glimpses of a life that only their wider experience has made them conscious of. But this fact does not destroy the fitness of their tales for use with children. . . .

[**Broad and expanding interests.**] — It is a mistake to suppose that children

necessarily prefer stories about children. They do like such stories, but in the main they prefer to find the children of stories associated, as they themselves are, with men and women. Nor have they the slightest objection to men and women — or at least grown-up youths and maidens — as centers of interest, provided the action be clearly defined, the emotions open, naïve, unsophisticated, the relations involved such as they are familiar with in their own world, and the morality of a simple, downright sort, such as their own meagre experience of life has taught them. With these essential conditions met, they are ready to accept almost anything that gives them a sense of abundant life — hardships to be endured, difficulties to be overcome, friends to help or to be helped, foes to be outwitted or subdued, pleasures to be enjoyed, and love and honor to be won. If something of the marvelous is introduced, so much the better. It stimulates and delights. It charms with its mystery. It allures by its revelation of the unsuspected resources of heaven and earth in reserve to support patient endurance, quick wit, and heroic endeavor. For, be it noted, none of the old fairy and folk tales offend childish intelligence and morality by giving the help of fairy or good genius to the faint-hearted, the sluggish, the cowardly, or the unkind. In this these stories show themselves right-minded, and receive the approval of children, whether they themselves are altogether right-minded and worthy, or are privately conscious of shortcomings that in the fairy world would inevitably bring on them penalty of suffering.

[**Appeal of the primitive.**] — Fairy and folk tales appeal to children through yet another characteristic. This is the constant presence in them of animal life, and the easy natural intimacy of relation existing between animals and human beings. These tales have not forgotten the primitive man's recognition of kinship with the creatures of earth. In them almost the earth itself is sentient and aware, its forces actively hostile or friendly, as is all its swarming life of animals and flowers. This is true to the instinctive feeling of children still. And folk tales may well foster whatever of truth is in the feeling, till science and poetry have revealed the larger truth, which does not destroy this, but transforms it. . . .

[**Contrast of adolescent interests.**] — Compared with the needs of children in the first elementary years, compared even with those of boys and girls of the upper grades, the needs of high school boys and girls are ripened needs. They exist not only in reality and for the consciousness of teacher and parent; they are beginning to exist in the consciousness of the very boys and girls themselves. Out of this grows a more vivid curiosity, a more persistent inquiry, a questioning that would comprehend more of the life of the universe than heretofore, and pierce deeper for the truth. At the same time the new consciousness of self, the sense of an enlarged personality, bewildering in its demands and unsubdued by knowledge, judgment, and the will, creates a new difference and awkwardness. The higher elementary years see the beginning of this stage, and, as we have seen, make correspondingly large demands on literature for substance of life, and on the teacher for skill in removing whatever barriers exist to keep apart the craving mind and the life it craves for. . . .

The substance of life that is now needed to sustain the rapidly developing life of youth may be sought in a wider range. . . .

[**Reflection and new curiosities.**] — And the mind, while still clinging with delight to action, the clash of life with life and circumstance, the movement of events in story and drama, is more willing to linger in reflection, in question; is readier to ponder on relations and causes, and to study the situation and the character from which an action springs. It responds more intelligently to moods, and, though continuing harsher in judgment than the adult mind because less capable of appreciating conditions and motives and the influence of circumstance, it has something more of an understanding now than hitherto of the perversities and inconsistencies of human nature.

. . . Boys and girls of the high school age also are more intelligently responsive to things of the spirit, to its doubts and forebodings and aspirations, its fervors and despondencies, its strenuous endeavor, its ardor of devotion. They are more keenly sensitive to beauty and ugliness in nature and in men and women, have sometimes sharper senses for form and color and tone, and feel more consciously their possible spiritual significance. The mystery of life, its sources, its destiny, its meaning, fascinates the more thoughtful, the quicker souls among them. In them is an insatiable curiosity, an insistent questioning of existence. And in all, but above all in those souls that are most alive, most responsive to the myriad appeals of the encompassing universe of life, there is a tendency to reserve, a shrinking from direct and personal speech on the things of deepest personal interest and significance. The enlarged capacities determine the deepened needs, and both alike call for a wider range in the literature that shall be supplied for sustenance and for increase of life.

[**Freedom in reading.**] — The prudency and reserve of youth make a further demand. Very much of what high school boys and girls read or should read to meet the needs of crescent life they should read with a complete sense of freedom, with no afterthought of being questioned upon it, of having to form opinions and pass judgments of any sort. That is to say, the library, already so helpful in the elementary school, is indispensable to the true end of literature in the high school. And teachers should learn in a measure to keep hands off, to see that books of a vital sort are accessible, and the bookroom attractive, and then to hold their peace except as their class work may influence the tastes and the choice of books.

XV. NATURE IN THE LIFE OF THE CHILD

We must find ways of taking children out of the houses and out of the cities, and let them learn to live on closer terms with the sky and water and woods, as well as with the plants and animals that furnish the foundation and background of human life. When we say that city life is "artificial," we mean that our earliest impulses are related to a different mode of life, one more directly bound up with the soil and its products; we mean that living in the city has to be learned, that it depends upon acquired habits. To be sure, one must learn also to live in the country, if he is to live passably well; but the demands of rural life appear at least to be less arbitrary or conventional, it seems easier to understand the requirements because they are obviously related to seasons, to the peculiarities of plants and animals, to the very nature of the things about us. It is one thing to find one's way about the city; but it is quite a different thing to find one's way through the woods or the swamp. Almost anybody can learn to come and go with trolleys and elevators, but only with ingenuity and resourcefulness may one travel in the wild.

This artificiality or arbitrariness of modern urban living appears strikingly in the daily work. The individual worker may well believe that what he does is of value to somebody, since he gets paid for what he does; but his efforts are not, for the most part, consciously integrated with the efforts of others in a common, vital purpose. There is no obvious relation between what we are doing and what we desire. The details of industrial work do not even result in all cases in recognizable parts of the ultimate product.

In a more primitive scheme of life, or in agriculture, the connection between the objective and the intermediate efforts is clear enough. The harvest is the precursor of the enjoyment of Earth's bounty, easily recognized as necessary. Tree cutting is an obvious preliminary to the utilization of wood. Digging worms is just as simply related to catching fish; cultivating and sowing are just as simply related to the harvest; and ploughing is naturally accepted as preparation for sowing.

In the care of animals as farm stock or as pets, and in the pursuit of animals as game, there is acquired a parallel appreciation of relationships that bears directly upon understanding life and upon understanding

human nature. For these reasons the care of living things may well be considered an essential part of every child's educational experience.

With the child's tendency to personify all the objects about him, his dealings with living things will "humanize" him as nothing else can. He derives from pets and plants a companionship on his own level of sympathy. He acquires habituation in considerateness and responsibility that no amount of admonition and no solicitude for inanimate objects can produce, since the response of the neglected or abused organism is to the child full of significance both intellectually and emotionally. As Curtis says:[1] "The care of animals has almost the same effect as though the child were caring for a dependent human being. All children love to feed pigs and chickens and gather the eggs and do other similar tasks; the care of an animal is an ideal type of duty to develop a sense of responsibility and reliability. If the pig is not fed, he squeals. He is an accusing conscience for all neglect."

Through the care of these beloved and responsive objects the child can learn a great deal of practical hygiene, as well as a great deal of appreciation for the meaning of hygiene. And finally, through sympathetic intercourse with animals, especially the higher ones such as the dog and the horse, the child achieves considerable insight into the unconscious processes of learning, and into many important psychic processes of man himself.

The child naturally projects upon the animal his own motives, his likes and dislikes, his interpretations of happenings. His growth in understanding comes in part from the failure of his conceptions to explain in all cases the conduct of the animal, and in part from a deeper insight into his own nature; but this in turn is derived in part from his familiarity with the animals.

"It is a matter of interest," says Bucke,[2] "to observe that children, in a manner, recognize the principles of good animal training, *viz.*, gradation of stimuli, persistence, reward, regularity, a single master, kindness, clear understanding, knowledge of instincts, sequence of habits, and mastery resulting only in a metamorphosis of instincts, when proper time is observed in training." And are not these the very principles every one of us needs in order to get along well with others, especially with younger, dependent, and subordinate persons? Joseph Lee[3] recommends that the care of younger children should also be a part of

[1] Curtis, Henry S. — *Education Through Play*, p. 289. The Macmillan Company (1915) 1922.

[2] Bucke, W. Fowler — "Children's Thoughts, Reactions, and Feelings Toward Pet Dogs," *Pedagogical Seminary*, 10: 459–511, December, 1903, p. 507.

[3] *Play in Education*, p. 226; The Macmillan Company. 1923.

every child's experience, and there can be no doubt that the "little mothers" and "little fathers" accomplish a great deal of value besides relieving adults.

The child's interests in the things of nature may be primarily analogous to the curiosity which leads him to explore with his eyes and hands and mouth, long before he can formulate a question. Everything new is strange, and everything strange is worthy of investigation. For this reason the infinite variety of animate and inanimate nature offers more stimulation than standardized mechanisms whose workings are taken for granted. Thus, changes in weather have for all of us an immediate and practical significance, since they interfere with our comfort or our plans, or they relieve of discomfort and further our plans.

For the young child these changes are of course related to his play and pleasure, just as for the farmer they are related to his crop production. The protected city child in many cases never gets beyond this primary attitude. He may learn to resign himself to the inopportune rain, because he is assured that it is necessary for the production of his food and clothing and for his water supply; or he may learn to protect himself against extremes of heat and cold. But to acquire a feeling of esthetic appreciation and spiritual regard for the elements, he will have to live in direct communion with the sky and the clouds. This type of familiarity with the sea and the mountains, with the stars and the trees, makes something of permanent value in the way of poise and perspective, and of a balanced view of our place in the universe.

In relation to plants and animals, the child's interest often reaches beyond mere curiosity to the desire to foster and protect, which is a normal constituent of affection. Hugging the cat may hurt the poor animal, but it does indicate a kindly disposition; and the child may learn from his pets how to love without causing pain.

Another interest cultivated by the care of living things is that of mastery. This desire to master is not merely self-assertiveness in the sense of domination — which may result in only a more or less refined cruelty; it should be considered and encouraged rather in the artistic sense which involves the acquirement of many skills based upon sympathetic insight. Satisfaction may thus be derived from the genuine achievement represented by training an animal, or by cultivating plants to the point where there is something to show for the effort.

Even where the child's interest in his plants or animals rises no higher than the sense of ownership, or the desire to display his possessions, living things will impose upon him responsibilities that inanimate possessions cannot elicit.

The care of living things has commended itself to many as the most direct means of acquainting young children with the facts of sex and reproduction in a thoroughly objective manner. Incidentally, continued association with living things from generation to generation must furnish also a solid basis for an appreciation of *breeding*, or the hereditary aspects of quality in human beings.

Much of the most useful knowledge about organic life and about psychic life can be most readily acquired by the child through his daily experience with pet animals. There is needed, however, in many cases some guidance in bridging the gap from these animals to man. One aspect of this difficulty appears when the child has overhumanized the cat or the dog. He attributes to the animal human sensitiveness, human appreciations, human, even conscious, motives. Sooner or later there is the certainty that the dog or cat, true to his own constitution and nature, will fail to live up to expectation — will do the nonhuman, or even the inhuman thing. The child's resentment is aroused; there is a violent reaction in the form of punishment or merely a revulsion of feeling or disgust, with complete alienation of affection. Such unfortunate developments can be avoided by helping the child to differentiate the status and capacities of the pet from the status and capacities of human beings, without undermining the affections.

An opposite danger is sometimes developed where excessive solicitude for pet animals leads to a perversion of values. Hall has pointed out, on the basis of studies made by some of his students, that as children grow older they become gradually disillusioned as to the intelligence and "spiritual kinship" of animals. This is precisely what happens also in the race's transition from animism to spiritual religion and scientific attitude towards the universe. In some cases, however, the overhumanizing of pets continues well into adolescence, and even beyond, with the result that the individual attributes to the animals human qualities out of proportion to any warrant in fact, and that he values mankind relatively lower than he should. It is true that, to a degree and for certain purposes, "we and the animals are kin." We are kin enough to learn from them a great deal about ourselves. We are different enough, however, to justify us in placing human life on a higher level and at a higher value.

The most hopeful and the most extensive effort to make possible for the children a closer familiarity with natural phenomena is seen in the rapid development of summer camps and in the formation of Scout Troops, Camp Fire groups, Pioneer Youth, and similar organizations of young people with definite programs of activity that take cognizance

of the outdoors and its inhabitants. These organizations have the advantages of increasingly skilful leadership, of well considered plans of work and gradation, of coöperation, of mass sanction and enthusiasm. They are influenced to be sure by a variety of ulterior purposes, but they do on the whole serve the needs of the children. Their chief danger seems to lie in excess of regimentation, in formalism, and in eventual mechanization of ritual and busy work.

The schools are also attempting to meet the needs by means of more intelligent use of excursions, hikes, gardens, care of domestic animals, and of more liberalized as well as more scientific, if less formal, nature study. These aids on the part of the school are in some respects quite as necessary in rural communities as in urban ones, and are becoming increasingly available in both.

In all times "Nature" has been personified and capitalized and dressed in a vague cloud of impervious mystery which goes far to increase awe or reverence for the unknown and to obstruct clear vision and understanding. This almost universal shrouding of nature in mystery, while attributing to it all powers and authorities, indicates a tendency of the human mind to project itself upon the outer world and to explain everything in terms of its own workings. This tendency is responsible for such widely separated facts as the development of theistic religions and totem worship, sentimental vegetarianism and passive fatalism, the grossest superstitions and mechanistic sciences. It is easy enough in a complex and mechanized civilization such as ours for people to entertain most diverse views about the nature of our world, to be as fantastic as they please about causes and effects, and yet escape serious consequences. A comparatively small number of people, seeing clearly and thinking straight, can ensure for millions safe transportation, safe water and milk, adequate supplies of steel and copper, heat and light. All that the rest of us have to do is to push the right button, pull the right lever, follow the directions so plainly printed on every package. And it is precisely this habituation to standard motions (which of themselves bear no relation whatever to the essential facts of life) that makes necessary a closer contact between the child and the natural world.

CHARACTER AND FAMILIARITY WITH NATURE*

LUTHER BURBANK

Any form of education which leaves one less able to meet everyday emergencies and occurrences is unbalanced and vicious, and will lead any people to destruction.

* From *The Training of the Human Plant*, Chapter X, "Character." Used by permission of The Century Co. 1907.

Every child should have mud pies, grasshoppers, waterbugs, tadpoles, frogs, mud turtles, elderberries, wild strawberries, acorns, chestnuts, trees to climb, brooks to wade in, water lilies, woodchucks, bats, bees, butterflies, various animals to pet, hayfields, pine-cones, rocks to roll, sand, snakes, huckleberries and hornets; and any child who has been deprived of these has been deprived of the best part of his education.

By being well acquainted with all these they come into most intimate harmony with nature, whose lessons are, of course, natural and wholesome.

A fragrant beehive or a plump, healthy hornet's nest in good running order often becomes an object lesson of some importance. The inhabitants can give the child pointed lessons in punctuation as well as caution and some of the limitations as well as the grand possibilities of life; and by even a brief experience with a good patch of healthy nettles, the same lesson will be still further impressed upon him. And thus by each new experience with homely natural objects the child learns self-respect and also to respect the objects and forces which must be met.

CHILD NEEDS CONTACT WITH NATURE*

ELIZABETH KEMPER ADAMS

For less than a hundred years have we been shut away from association with plants and animals and the necessity of providing from our immediate surroundings the materials for fire and food and drink and clothing and shelter. Something suffers within each one of us from this deprivation, and we must deliberately plan to bring again within the experience of every boy and girl some of these natural joys and activities. The vast extension of provisions for out-of-door life which we see on every hand — summer and even winter camping under all sorts of auspices, great tracts set aside for public parks and reservations . . . all are efforts to satisfy this deep need of our natures; it is a great movement of compensation and restoration.

VALUES IN NATURE STUDY†

FREDERICK L. HOLTZ

[Curiosity about nature.] — The child wonders about the objects and phenomena of nature; he is curious about them, perhaps for no reason except that they attract his attention. He feels that he must know what and why these things are, and this irrespective of any consideration of the usefulness or applicability of the knowledge to himself or to society. In much the same way the adult scientist craves a satisfying explanation of, or insight into, many facts of nature. I believe this powerful impulse should not be neglected in

* From "The Energies of Girls," *Playground*, 18: 639–642, 659–660. Feb., 1925; p. 659. Copyright by the Playground and Recreation Assn. of America.

† From *Nature-Study*, Chapter I, "The Motive"; Chapter III, "The Aesthetic and Ethical Values of Nature Study"; Chapter VII, "Animal Study." Charles Scribner's Sons, (1908) 1925.

education, though it may be carried too far and lead to mere book learning, with a disregard for the fact that, in general, knowledge should be a means and not an end in itself. Nevertheless, this knowledge gained through mere curiosity, though not always practical, affords much satisfaction and pleasure. It is the basis for our aesthetic and spiritual view of nature. It creates a certain pleasant familiarity with nature, and one's rambles in the park or in the country make one feel *en rapport* with it. Through this curiosity we learn of many interesting and beautiful relations in the natural world. We find that a unity prevails and we discern a plan more or less clearly. In short, this impulse arising from curiosity finally places the individual in harmony with the natural world and adds in a great measure to general culture.

This harmonizing of man and nature is an essential element in education. It must not be forgotten, however, that much of this knowledge gained from curiosity or — to use another expression — in the search for truth, may later be found to be of great, perhaps the highest, practical value. Through this everlasting spirit of inquiry many important facts and principles have been discovered, and the field of human vision widened.

The child should be allowed to investigate freely in nature whatever his interest suggests. This sympathy with birds, insects, plants, and even inanimate nature is one of the most desirable things he can get from nature study. If nothing more it ought to make him happier in this wonderful and beautiful world.

If we utilize as we should these natural interests or innate impulses of the child, we have enough of stimulus or motive to vitalize nature-study. . . .

[**Aesthetic values.**] — Many students learn for the mere pleasure of learning. This is the case of the scientist who discovers the laws of nature or proves a theory, without a thought of their practical application. Even a child in the satisfaction of his curiosity has a similar feeling.

But we can get sweet and helpful pleasure also from the sensuous enjoyment of the beauty of nature's forms and colors, the songs of birds and the sound of running waters, the fragrance of the flowers and the smell of the earth and sea, the delicious flavor of fruit, the warmth of the genial sunshine, the touch of our feet on the ground, or the feel of the earth as we lie upon it. These pleasures of the senses, though not the higher kind, should not be neglected. Without them life would be much more matter-of-fact and uninteresting. Just as it is right to enjoy sensuously good music or the lines and coloring of a beautiful work of art, and as it is right to train the ear for music and the eye to discriminate beauty in art, just so it is right for us to enjoy nature through the senses, and to cultivate them so that we may enjoy more fully and intelligently. These animal sensations of the charms of nature add immensely to the pleasure of living, and directly or indirectly affect our views of life.

[**Knowledge yields power.**] — Nature study has perhaps been the chief factor in the culture development of the human race. At first man was the fearful slave of nature, seeking a precarious existence, struggling blindly with natural forces. Then he became nature's pupil. By observation of the crea-

tures about him and by personal experience he learned to adapt himself better to his environment. The more he learned the better fitted he became for life, and the more his mind expanded. Simple inventions of tools, the domestication of animals, and the cultivation of plants soon made the slave the master, so that to-day man takes advantage of his environment, utilizes the resources of nature, and even directs her course very largely for his own ends.

As children of to-day personify, so primitive man attempted to explain the wonderful phenomena of nature about him by personifying the mysterious forces that so powerfully affected his life. Thus mythology and religion had their origin. The ideas awakened by, and the pleasures derived from, nature have had very much to do with the development of poetry, music, painting and sculpture. . . .

[**Sympathy with nature.**] — Children generally display this nature instinct more than adults, though not as much as many adults. The child likes the pretty colored insects, leaves, and birds. He likes to play in the earth, and to frolic with pets and wild animals. The sympathy for pets and, through them, for other creatures is one of the finest things we can teach through nature-study. The child is greatly interested in the animals of the farm, in their uses and care. He likes flowers and fruit, and can be readily taught to care for growing plants. There is an aesthetic and a moral as well as an educational element in the cultivation of potted plants, trees, gardens, etc. Children love to roam about in the fields and forests and enjoy the mystery of their numberless discoveries. They like to be on the water, or in it. They like to fish, hunt, and camp. They like to play the primitive life of the Indian or the pioneer.

Later, as imagination and knowledge develop, comes the enjoyment of scenery, the landscape, the sea and sky effects; later, also, the appreciation of the beautiful adaptations and interrelations in nature. Then, too, come the perception and admiration of natural forces and the laws according to which they act, and the attempts to see a unity and guidance in the universe. Enjoyment of nature becomes more and more conscious. Personal applications are made of nature's principles. We try to fit into the world scheme — and our religious and philosophical interests develop.

Much may be done to cultivate in children a love for nature. Bring the child often in contact with nature, and let her silent influences work. Let him be taken on field trips to enjoy the beauty of the flowers, the birds, etc. Point out these things to the children who fail to see for themselves. . . .

[**The ethical element in nature-study.**] — The search for recognition of truth in nature study has a definite moral tendency. All great scientists have a high ideal of truth. Nature study, by constantly checking the thought by the actual facts, tends toward intellectual honesty. Again, the rule of cause and effect exemplified so concretely in nature study, when applied to personal and social relations, tends strongly toward moral improvement.

It is customary to teach children about animal wisdom, providence, care and love for the young, etc. These things, no doubt, are interesting to children as reflecting their own home life, and some moral benefit is derived therefrom;

but one of the best things they get from nature study is a sympathy and love for the lower animals. The care for pets is good nature study and also good moral training, for it teaches us to consider the wants of these animals. Children, however, should be taught to be kind also to the birds, the squirrels, frogs, and toads, instead of cruel as they so often are. They should be taught to recognize the right of all harmless creatures to live. They should be made to feel that we and the animals are kin.

The raising of plants and the cultivation of a garden also may teach regularity, watchfulness, patience, and persistence. Lovers of plants show an almost affectionate interest in their development. Flower culture develops a gentleness of spirit in the children who practise it. Many believe a boy cannot become a vagabond and criminal if he has been taught to love the cultivation of plants. . . .

[**Familiarity with living things.**] — A large element in the life of a child is the companionship of a dog, a cat, or some other pet. The care of pets and the playing with them make a very practical form of nature study. The same is true of the treatment of farm animals.

The wild animals are even more interesting than the more familiar, though more important, domesticated animals. Their very rareness and shyness make them interesting. The most matter-of-fact, the most unimaginative persons will stop to look at a deer, at a squirrel, an eagle, a humming-bird, a strange beetle, or a beautiful butterfly. Children greatly enjoy the study of wild animal life. What are they interested in? They want to know what the creatures do, how they live, what they feed upon, what good or harm they do. Let this be a guide in animal study. The structure does not generally interest children as much as the activities of the animals.

THE CAT AND THE CHILD*

G. Stanley Hall and C. E. Browne

[**The child's animism.**] — The child's attitude toward the cat is largely anthropomorphic. He attributes to the cat the same thoughts and feelings which he himself experiences, and in his treatment of his pet unconsciously reveals his own standards of right and wrong, his tests of affection, his preferences and dislikes. In this connection one of the most interesting points brought out is the child's inclination to make the test of right and wrong an objective conformity to the will of the owner.

The care of a pet tends to develop a sense of responsibility in the child and a humane consideration for other animals. Comparatively few instances of neglect or forgetfulness are reported, and these are usually mentioned with regret. In some cases the fighting and hunting instincts conflict with the humanitarian instincts.

In this phase of the child's playing we have an important sidelight upon the psychology of childhood. Groos has seen in the child's anthropomorphic play

* From *The Pedagogical Seminary*, 11: 3–29, March, 1904.

an anticipation of its future life work; the disciple of recapitulation sees in such plays the backward look; but, whatever the explanation, the largest and most spontaneous group of child's plays in general are anthropomorphic.

It is this character of the child's playing which gives to childhood its distinctive mark as differing from the later stage of adolescence. The one passion of childhood is for anthropomorphic plays, toy animals, horses, and men; houses, boats, machinery; playing Indian, soldier, school, store, house, doll babies; playing at sickness, death, matrimony, and what not. In fact, there is not a single human relation, occupation, or character which the child does not embody in his play, and impersonate with all the zest of complete illusion. The child's plays, of course, strike their roots deep into the past of the race. He likes to exercise, especially the biceps muscles in striking with a club, batting, etc.; also in games of throwing balls, rocks, marbles. Going still farther back he is the wild animal, the horse, the bear, the dog, etc., in his play. If now childhood may be regarded as both recapitulatory and anticipatory, finding its best expression in spontaneous plays, an important function of education is to furnish, as far as possible, material for such plays and keep its "hands off."

CHILDREN'S REACTIONS TO PET DOGS*

W. Fowler Bucke

[**Learning from dogs.**] — This pet, the dog, has taught the children goodness, politeness, sympathy, cheerfulness, companionableness, appreciation, patience, gentleness, cleanliness, the reward for good nature, interest in and knowledge of all animal life, and the exalted position of all animal nature. It has made them more interested in their fellows and humanity, and has furnished the ideals of life. If these have been the conscious forces reacting upon life, to measure the unconscious must be left for after consideration.

Summary and conclusions. — 1. The dog has been, and is, a great force in the development and natural education of the child and the race.

2. All indications seem to show that his first relation to man was that of an economic assistant in life's struggle, and that his qualities made him companionable to children and adults alike.
3. The child recognizes in the dog qualities superior to his own, and regards him as a member of a common family with himself. This tie has in it a strong element of mutual dependence.
4. There seems to be a common relation between the history of domestication, the popularity of pets. and their ability to learn man's desires.
5. Scent is recognized as his keenest sense, memory his most remarkable faculty, in both of which he is regarded as superior to man; and fidelity the most striking principle of his life.
6. The attachment of many children to their dog and the regard in which he is held by them has traces of a similar relation to that between many primitive races and their respective totem animals.

* From "Cyno-Psychoses," *The Pedagogical Seminary*, 10: 459–511, Dec., 1903.

7. The scope of his intellectual power; his breadth of feeling and devotion; his unusual patience with children; his economic and sporting propensities, which have the faculty of leading human beings back to their commonplace activities, so deeply rooted in the human race, make him more and more popular with years.
8. For a playfellow to an only child, he fills almost an indispensable relation, if the child is to repeat the race history; and his absence from a family of children is an irreparable loss, from present modes of life.
9. Solitude, which always craves some relationships, loses its gloom in many cases in company with a dog.
10. The number and shape of the bones, the number and form of his toes, the composition of his body, as to whether his teeth are carnivorous or herbivorous, the character of his skeleton, etc., have not once been mentioned by any child, although many books on nature study have emphasized these points especially.
11. The whole interest is in life, and when death interests are indicated, whatever has been done, is in *memory of his life.*
12. A dog book, touching the characteristics which this study has shown as appealing especially to them, would supply an excellent means of supplementary reading for the schools which these children attend.
13. A good point of attack for the proper study of hygiene, would be an interest in dog hygiene by the public schools.
14. The dogs of various tribes and peoples would afford an excellent basis of luminous stories, giving pictures of the life and habits of these races, desirable as supplementary reading in the schools.
15. It is reasonable to believe that she who has had successful experience in training a pet dog, would better understand child life and be more successful in teaching the child, than one who has not had such experience.
16. Where the interest warrants the dog affords an excellent subject for problems of biologic and psychic study in observing and making records of the functioning of sight, hearing, physical maturity, food effects, etc., thus introducing and developing an interest in a first hand study of all animal nature.
17. A genuine interest in a pet like the dog, develops a humane spirit, and creates a safeguard against many criminal offenses.

XVI. COEDUCATION

Coeducation has developed as common practice in large parts of this country chiefly for administrative or economic reasons. It was found more economical in the newly settled communities to send girls and boys to the same school than to build separate schools. It is only as we have become relatively prosperous, and therefore in a position to make a choice, that the question has been raised as one of educational policy. In the meantime, however, other things have happened and the tendency to-day is to consider the question more and more from the point of view of our larger educational purpose, and from that of our better understanding of the child's nature.

Quite apart from any of the specific objects we have in mind in sending our children to school, we must remember that we expect the children eventually to become men and women, and as such we shall expect them to know how to conduct themselves in mixed company of all degrees of complexity. Now the only way that children can learn how to conduct themselves in the presence of the opposite sex is by being brought up in the presence of the opposite sex. Those who have traveled widely with open eyes can tell you how apparent are the awkwardness and the self-consciousness of children brought up almost exclusively with members of their own sex. We may expect the home to do something to offset the bad effects of exclusive schools, but sisters and brothers do not quite satisfy the needs of the situation; there are not enough of them, usually, and they are likely to be more familiar than are girls and boys found in school and on the playground.

We may differ as to whether girls and boys should be taught altogether the same subjects in school, and as to whether they should be taught in altogether the same way. But there can hardly be any question that much of the daily activity of the growing child should be the same for both sexes, and that they should share a great deal of each other's company.

Boys certainly need the benefits of feminine associations, but do not get it from confinement with a woman teacher who has no sympathy for or understanding of their instincts and desires and needs. Girls are just as much in need of an opportunity to become acquainted with the masculine elements of our race and our civilization. The boy needs

to learn more about feminine nature than he can learn from his teacher and mother, and the girl needs to know more about masculine nature than she can learn from her father and the dancing master. It would thus seem desirable, as it is quite feasible, to have girls and boys in the same school, doing much of their work in the same classes, but separating, when necessary, for some of the exercises, and gradually differentiating their work as the interests and needs of the sexes diverge. We must give girls and boys the fullest opportunity to develop the very best that is in them as girls and boys, and this they can do in an environment that is broad enough to include all the activities and interests of girls as well as of boys.

That coeducational colleges do not give girls opportunities and treatment identical with those obtained by the boys is probably true. But, as Miss Peixotto points out, the differences encountered are parallel to those of life itself, and neither sex can gain from ignoring or from trying to escape them.

COEDUCATION*

J. H. Badley

[Besetting difficulties.]—If it is not, indeed, any longer necessary to apologize for coeducation as for something so strange as to seem monstrous and unnatural, or to remind objectors that nature has taken no precautions to separate boys and girls, at any stage of their growth, into different families, there are still plenty of doubts and difficulties that have to be met. Some of the commonest objections need not be taken too seriously. Do we want boys to play with dolls? Are girls to play football, or are boys to spend their time in dancing instead? Are girls to be caned? Is it good for boys to be tied throughout their school life to women's apron-strings? — these and the like may be treated as rhetorical questions which do not expect an answer; at least they do not need one other than is given in any home. But some are more serious. The process of sex-development is a time of difficulty in any child's life; is it not merely adding danger to difficulty to keep the sexes together during these years? Or again, if, in addition to natural differences of strength or capacity, it is an observed physiological fact that boys and girls do not develop alike, but at different rates and at different times, must not setting them to follow the same course do inevitable harm to one sex or the other, by making demands that must be either excessive or insufficient? Difficulties such as these are not to be lightly dismissed; and coeducation, whatever the advantages it promises, cannot be accepted as an article of educational faith until it has been shown that they are either less serious than they look, or that if they are boldly faced some greater gain lies in the means by which they can be overcome.

* From *Bedales — A Pioneer School*, Chapter IV. Methuen and Co., Ltd. 1923.

[**Sex differences and others.**] — Let it be granted, then, at the outset that there are differences, some of them well marked, between boy and girl; but what of this? The aim of bringing them up together is not to make them alike, but, amongst other things, to see that neither sex is debarred from the fullest individual development by merely conventional differences of treatment. So far from attempting or desiring to put all into one mould or turn out a standardized product, as uniform in thought and feeling as in dress, the purpose of education should be to provide all possible opportunity for the growth of individuality and to make all possible allowance for individual differences, so that each can become his best self. So wide are the differences between individuals, even of the same sex, that the problem is not so greatly altered as might at first appear by the fact of having the needs of both sexes to consider. Once we recognize that no two human beings are exactly alike, and that children, if we are to educate instead of merely drilling them, cannot be treated in masses but must be considered as human beings, each in some respect unique, we soon discover that the differences of sex are no greater and no more varied than those of temperament and natural capacity. On the contrary, their importance is easily exaggerated, and the far more numerous points of similiarity overlooked from their very obviousness. If we do not want to make boys and girls alike, neither ought we to shut our eyes to the fact how much alike they are, and how largely their needs are similar. Whether in work or play, or in the school life, the greater part of the provision to be made for them is the same; and more than ever in these days when, after school, both sexes more and more share the same interests and follow the same careers.[1]

[**Need for common experience.**] — But whether we are inclined to insist on the differences or the likenesses, the question remains whether a common upbringing is desirable. Even if the system of education we adopt allows of all possible differences of treatment, and even if, on the other side, far the greater part of education must in any case be the same for both, why, it may still be asked, should it be given to them together? If given separately it can be just as efficient — this, at least, is usually taken for granted — and if, as has been admitted, certain difficulties have to be faced when they are together, is it not common sense to educate them separately, and only gratuitous foolishness to insist on incurring avoidable risks? If we were merely concerned that boy and girl should get a similar education the argument might hold; but, whether the same or different, the important thing is that they should get it *together;* for just in this community of life and interests, and the mental attitude and outlook that it makes habitual, lies the gain for mind and character and for the later life that they will have to share.

[**Mutual aid.**] — As to the mental gain, there is for each an intellectual stimulus, of a somewhat different kind, in the presence of the other. The girl

[1] Much helpful evidence as to points of difference and similarity between the sexes is given in the recently issued Report of the Consultative Committee on Differentiation of the Curriculum for boys and girls respectively in Secondary Schools. January, 1923, Board of Education, London. Published by H. M. Stationery Office, London, England.

at first develops the more rapidly, and at this stage her greater responsiveness and readiness of interest are a spur to the boy and help him to overcome his difficulty of self-expression. Nor does she gain less from the wider outlook, in the treatment of any subject, that is the result of the somewhat different points of view from which they approach it. And for both alike there is the gain of coming into daily contact with teachers of both sexes. It is by no means the least of the advantages of coeducation that it necessitates a mixed staff, with the greater variety of interest and outlook that this implies; an immense advantage, in the first place to the teachers themselves (for whom otherwise the school life may easily become a narrowing and deteriorating influence), and therefore also to those they teach, at once in the actual influences of the class-room and even more, as already insisted on, in the whole atmosphere and life of the school.

For it is not merely in the common instruction of the class-room, but still more in the common interests and problems and the whole intercourse of the school life that the chief gains of coeducation are to be found. On the one side there is the humanizing influence that the presence of girls exerts on boys, not only in language and manners and still weightier matters of conduct, but also in ideas of government and methods of exerting authority, and in their general outlook on the problems of life and the ideals with which they prepare to meet them; and on the other there is the sense of greater freedom and enlargement of the girl's horizon such as she gets if one of a large family of brothers and sisters — the common life together providing the natural correction for the pettiness and sentimentality rife amongst girls when thrown upon themselves and their own interests alone. Each has something to give the other that they cannot otherwise get. If the boy needs civilizing by the girl, no less, in other ways, is the girl's nature made fuller and more human by daily contact with the boy.

[**Mutual understanding.**] — And if we look beyond the actual years of growth to the men and women of to-morrow that the school is making, and the world in which they will live, the need and the value of coeducation are most clearly to be seen. Whether we think of the home that they will have to make and share with each other, or of the working life in which they will take part, or of the wider social and political life whose claims affect both alike and whose problems neither can solve satisfactorily alone, it is plain that the difficulties that then await them are greatly increased if they approach them as strangers to each other with different habits of thought, different standards of conduct, and different ideals. And yet is not this, at present, almost inevitably the case? When Bernard Shaw says, in one of his prefaces, that "a man as intimate with his own wife as a magistrate with his clerk, or a Prime Minister with the Leader of the Opposition, is a man in ten thousand," it may be thought to be merely a characteristic paradox, meant to startle rather than to convince. But listen to the same thing said by a writer less prone to exaggerate, R. L. Stevenson: "Man is a creature who lives not upon bread alone, but principally by catchwords; and the little rift between the sexes is astonishingly widened by simply teaching one set of catchwords to the girls and another to the boys. They

are taught to follow different virtues, to hate different vices, to place their ideal, even for each other, in different achievements. . . . What the boy does almost proudly, as a manly peccadillo, the girl will shudder at as a debasing vice; what is to her the mere common sense of tactics, he will spit out of his mouth as shameful." Where does the remedy lie? Not in the adoption by either of the standards of the other, but in finding, by help of mutual knowledge and common effort, especially in the years when habits of thought and feeling are being formed, common values and standards of judgment. We need a truer and happier relationship to take the place of the alternate phases of mutual contempt and mutual idolization that are encouraged by separate upbringing and mutual ignorance. Only by living together, by sharing the same interests, and working at the same things, by seeing how the matters of daily experience affect them differently, and learning to make allowance for the differences, by meeting the daily difficulties and working out together the problems of government to which the school life gives rise, can come the instinctive understanding and confidence, as of fellow countrymen instead of foreigners, that are the only basis of real and lasting comradeship, whether in common fields of work or in the region, beset with so many pitfalls, of friendship and love.

[**Danger of effeminization, etc.**] — But here objections are sure to break in, for it is just in this matter of comradeship, and in this region of pitfalls, that to many coeducation seems so dangerous. They fear that, if brought up together, boys must inevitably be made effeminate by the example of girls and the surroundings that these require; while girls, they think, will no less inevitably lose their womanly qualities and become mere copies of boys. This fear rests on the belief that in coeducation both must do exactly the same things, and that the aim is to make them as much alike as possible. But this, it has already been said, coeducation does not mean. There is no reason why a boy in a mixed school should not play football and box just as hard as in a school for boys only, and this without leading girls to do the same, though they, too, can show as much pluck in their own games. A certain amount of similarity is, indeed, eminently desirable. The Scout movement has shown the value for boys of learning to do for themselves many things that used to be looked down on as girls' work; and, on the other side, a girl can with advantage do much that a boy does without thereby becoming in any way a hoyden. If the old "ladylike" ideal of conduct, that tried to cut off a girl from realities and frowned on any vigorous action, has passed into the same discredit as the swearing, bullying, foul-mouthed type of boy, so much the better. Most healthy girls go through a tomboy stage, and, if their healthy instincts are not repressed, soon outgrow it and are all the better women for having passed through it. The characteristic qualities of the sexes are not so merely skin-deep that they are in danger of being completely changed or overlaid by a common upbringing. It is rather by separation during the formative years that they are apt either to become exaggerated or to remain undeveloped; and only when boy and girl grow up together that they develop their whole natures, differences as well as resemblances, most normally and healthily.

[**Danger of indifference.**] — Some fear that, thus growing up together and learning to take each other as a matter of course, they will remain indifferent to each other and lose the glamor of romance. In this there is this much truth, that the daily intercourse of school life on equal terms, each seeing the other, as it were, in plain daylight and so able to make a truer valuation, tends to postpone the emergence of sex-consciousness and, in place of the insurgent demands of a repressed instinct, heightened by the attraction of the unknown, allows the natural sex-attraction to develop on sounder lines of comradeship, and thus prepares a wholesome soil for the later growth of love. Most people assume that the mere separation of the sexes ensures putting off till maturity the awakening of the sexual life; in reality separation does no such thing, but tends rather to stimulate and force it into exaggerated and harmful forms. It is truer to say that, both during the years of growth and in the after results, development is in general more normal and more healthy where boys and girls grow up together.

[**Stimulation of sex interest.**] — But what if this normal development means, as others fear, falling in love at an age when they ought to be concentrating all their energies on school work and examinations? As just said, instead of inducing precocious lovemaking, common work, common interests, and the hourly intercourse of a common life afford a natural outlet for feelings that, if thwarted and driven in on themselves, are apt to turn to silliness or worse. Whether this outlet takes the form of simple and sensible comradeship or of silliness and flirtation depends mainly on the general feeling of the community; and this in turn depends mainly on the conditions, sensible or otherwise, under which the life together is lived; and especially on the attitude, sensible or otherwise, of the school authorities, including the older boys and girls who hold any position of responsibility, and of parents. Older people can easily do much — far more than they generally realize — by silly questions and innuendoes to spoil the natural and matter-of-course acceptance by each sex of the other, and to lead them to think that some sort of silliness is inevitable instead of a simple friendliness. If, on the other hand, all take the latter for granted and treat any approach to silliness as the unwanted exception and a thing that soon spoils good comradeship, children are ready enough to take this attitude and, the more thoughtful among them, to take a pride in maintaining it. In this, as in other matters, we get what we show that we expect. If we look upon all friendship between boy and girl with fear and suspicion, we shall soon make it justify our distrust. If we treat it with sympathy and understanding, as a thing as natural and helpful as any other friendship if kept on sensible and straightforward lines, it will in the greater number of cases be only good for both. Sometimes it will not be so; it may become silly, or it may be too exclusive, or too distracting, and we must find some way to make them see it in this light, and put it on better lines. Even so it may well have done good; for the direction and control of the feelings is a thing that has to be learnt no less than that of hand or mind, and here also experience is the only sure teacher. In education mistakes are not the least valuable of lessons, and the small mistakes, taken in time, may save from

the big ones later on. It needs, as said above, sympathy on our part and understanding, and it needs common sense. What part of education does not? Sympathy without common sense can be as harmful as, on the other side, the hard common sense without sympathy that, trying to crush impulses, only drives them under the surface, out of sight but by no means out of mind, instead of utilizing and guiding them into helpful channels. From such possibilities of friendship, neither looked upon with suspicion nor left unaided, but treated with sympathy and common sense, comes the mutual knowledge without which there can be no real sympathy or respect between the sexes — the only firm basis for lasting comradeship, and for love when in due time it comes. This knowledge of each other, gained throughout years of school intercourse, is the best of safeguards against hasty mistakes of ignorance; and if, as sometimes happens, a school friendship ripens later into love, it could have no surer foundation or better guarantee of lasting happiness.

If marriage is to be not merely a thing of mutual attraction and some similarity of tastes, but a community of mind and spirit as well, it is a finer but also a far more exacting thing, and needs some fuller apprenticeship than casual acquaintance can give. It cannot, of course, be claimed that school friendships and the daily intercourse of school will prove an infallible guide (what, short of the whole of experience, could give us that?), but we can hope that they will furnish a basis of knowledge and a criterion of judgment to prevent the falling in and out of marriage for a whim in what, since the war especially, has threatened to become the modern fashion.

[**Differentiation of instruction and study.**] — But even if the sex difficulty, so far from making coeducation impossible, proves, if boldly faced and sensibly handled, to be one of our greatest educational opportunities, there still remains the other difficulty, that boy and girl develop at different rates, and in consequence what, at any given age, may be good for the one may be bad for the other. That the curve of growth is not the same for the two sexes is undoubted. Both in body and mind the girl develops earlier, and up to fifteen or so is usually a year, or even two, in advance of the boy. Up to this age it is, therefore, easy for her to hold her own in everything except matters of physical strength; and it is by no means bad for the boy, in these earlier years in which he prefers bodily to mental effort, to have the spur of her readier response to any kind of intellectual stimulus. After fifteen, on the other hand, the boy's development is in all ways more rapid, while that of the girl slackens; and at this stage it would be a mistake to insist on their working at the same things and at the same rate. But, as has already been urged, the common general course, that all alike have been following up to this point, should now give place to special lines of work in accord with the peculiar bent and future needs of each; and this makes it easy to allow of differences both in the courses followed and in the severity of the work, and thus to avoid making things insufficiently exacting for the one or running the risk of overstrain for the other. This will be more easily done if the work is so arranged that each can advance at his own pace and only those work together who are at the same level. If that is the case,

there need be no more difficulty of this kind where boys and girls are together than in separate schools; in which, indeed, owing to the pressure of external examinations, there can be just as much or even more competition, and no less risk of overstrain to girls in these all-important years in which no excessive demands ought to be made on the physical and nervous energy then being stored to meet the needs of future motherhood. To encourage any kind of competition between the sexes, during these years above all, would be a criminal folly. But such competition is in no sense a necessary part of coeducation; it is, rather, an essential part of its purpose to replace sex competition, in this as in other things, by every possible kind of coöperation.

[**Continuing common interests.**] — And whatever the differences in the courses followed in these later school years, there is still much even in the work, and very much in the school life, that can be shared. Whatever the career in view and the special lines of work, scientific, technical, and so forth, that lead up to it, time must still be found for keeping up studies in language, literature, history, or art — the rightly called "humanities," whose purpose is the enriching of the mind with the treasures of imagination and feeling as well as the utilities of knowledge. In these studies there is a wide field for common work, of great gain to both, in which the girl is at no disadvantage; and in this field, as in all social interests, such as music, dancing, and acting, for which the school life gives abundant scope, the coöperation of the sexes adds greatly to the range of what can be accomplished, and so to the fullness and happiness of life. Adolescence craves happiness as its right; and it makes all the difference, not only at the time but for the future, what means it has for satisfying the craving. This is a need far too little considered at school. Games are the main thing relied upon; but to how many can games give this satisfaction, and what sort of satisfaction is it at best? Only in filling both the working and leisure hours of life with manifold interests and healthful activities is any real satisfaction to be found such as will last after school days are over; a satisfaction the more real and the more lasting if these interests and activities are shared by both sexes, and so form a bond of common experience and common memories associated with the enthusiasms and aspirations of youth, that is one of the most delightful, and at the same time one of the most helpful, contributions that school can make to life.

[**Common responsibilities.**] — For delightful as is the community of interests that it brings, this school comradeship has something of yet greater value to give. From the sharing of common responsibilities, from the facing together of difficulties and problems of a life in whose ordering they have a joint share, from the sense of living in a community that they are together shaping and helping to create, comes a feeling of interdependence, of coöperation in something more than personal aims, of a relationship and an outlook no longer negative, determined by convention, but positive, based on mutual helpfulness. It is a commonplace that this, beyond all recent times, is a time of change. Not only has a new world to be shaped out of the ruins of the old that the war has left, but, even apart from this, vast changes, hastened or retarded by the

war, are visibly in progress. In the relations of nation with nation, of class with class, of the sexes with each other, all is yet to make. And in all these things the task is one in which both sexes have to take their share. For such a common task do they not need a common training, habits of coöperation and understanding rooted in long experience, and a sense of comradeship that has been tested and confirmed by all that has gone to shape their powers and aims? If most of all it is in the school that the foundations of the future are laid, is it not a factor of success that those who together do the building should from the outset learn to work and plan together? Such at least is our conviction. It is this conviction of its value and our experience of its practical working and results that have led us to regard coeducation as a vital part of the training for the life of our time and its needs. It brings with it, as we hold, real gains to both sexes; and if it brings difficulties too that, if disregarded, might more than outweigh the gains, these very difficulties, wisely faced, prove to be by no means insuperable, but even productive of further gain both at the time and yet more for the future.

THE CASE FOR COEDUCATION*

Jessica B. Peixotto

[**Adequate equipment.**] — The new generation of women certainly require, even more than any special stock of facts, a mental discipline to enable them to cope with new circumstance. The main instruments by which to train for life's realities are good libraries and well equipped laboratories for research in the natural and social sciences, not too far separated from the experience and the observation of life. Only the coeducational university furnishes these two classes of training. Libraries and laboratories are expensive. All the equipment by which men search and search again for truth costs. Therefore it is not obtainable where endowment and income are small. Blink the facts and it is possible to believe the experiment of women's colleges has no handicaps in this regard. Look reality in the face and crucial limitations appear persistent.

[**Scholarly instructors.**] — First, the ablest scholars are in great coeducational universities. With rare exception, they cannot be induced to stay in women's colleges. There may be less worthy reasons, but the absence of equipment is surely one notable reason. The endowments available for women's colleges have not ordinarily been large enough to pay the high price of the most characteristic and important attributes of university education, large libraries and ample laboratories that all students need, women especially.

This puts them in second place, for university life without research is a travesty. Unless organized to stimulate an habitual quest for truth and to permit a trial of the methods for doing it, college life is a mere prolongation of secondary education. Students over twenty years of age are more harmed than helped by classroom instruction and lecture work when unaccompanied by their own personal observations and decisions in library and laboratory. . . .

*From *The Forum*, 70: 2059–2066, November, 1923.

[**Common extracurricular activities.**] — In college activities powers for social responsibility are quickened and ripened. In coeducational colleges these college activities give both sexes the additional advantage of training in straightforward relations with each other. Strengthened by the new outlook on life gained daily in laboratory, library, and classroom, young men and women together organize committees on journalism, the drama, music, athletics, debate, politics, charitable endeavor, club life, devious relations with alumni and with the outside world. Any campus of a great coeducational college is an intricate web of associations claiming brainpower and loyalty from each member of many groups. So is life. The pressing social need is for men and for women thus trained and trained together. . . .

[**Sex interest.**] — Society needs above all, young men and young women trained to step out of college life to serviceable, sane living. If it is claimed that coeducation tempts the male interest, perhaps the female too, away from research to sex, the answer is: so will life. Unless the lesson of concentration is learned early, the temptations of later life will be more disastrous than those of college years when temperament is still malleable and deans and student welfare committees call a halt without too serious a penalty. The remedy for a sex interest that submerges the other interests surely lies, where the situation is not morbid, in the commonplace of a daily contact between the sexes and not in sharpening sensibility by separation. Facing temptation makes stronger men and women than running away from it. Also temptation, like trouble, sometimes proves to be misnamed when looked squarely in the face.

[**Sex precedence.**] — Likewise, isolation will not train women to their contemporary task. The "coed's" share in the campus life may, as the feminist urges, be hampered by the precedence both sexes traditionally give to men and by the cherished demand for "feminine charm." But all society behaves this way. The "coed" may learn to overcome the handicap; the girl isolated in a separate college ignores it for four years of comfortable, easily-won superiority and then, rudely disillusioned, is inexpert in meeting the real situation. Granted the disease, sex precedence, the issue lies in the remedy — shall it be separation and a fool's paradise of security and precedence or shall it be habituation and training in facing daily irritants and handicaps that are part of our social heritage, weighing them, measuring them, and possibly at length surmounting them? . . .

In theory and in practice, coeducation neither abolishes sex nor maintains any special order of sex relation. Unavoidably coeducation disciplines sex to the "instant need of things" and this is its best service, its *raison d'être*. Disturbing variations from Utopian codes of conduct, the bugaboos of their elders, become mere historical categories for young people habituated to work and play together daily.

XVII. SURVEY OF THE CHILD'S DEVELOPMENT

A complete description of the physical and mental characteristics of either a single child or of the "average" child would require a large volume; and the study of this volume would be of doubtful value to the ordinary parent or teacher. The great amount of study that has been given to this subject yields some important practical ideas, however, and these most of us can learn to use.

We are impressed first of all with the extent to which individuals may vary from the average. Averages have meaning when we are dealing with large groups; and the gathering of facts about large numbers of children enables us to discover what is typical at each stage, since only in this way can we discount the peculiarities of the individual. Averages do not tell us what to expect of a particular individual, unless we have judgment enough to make allowances for the peculiarities of the individual — and every single child is distinct in many ways.

The significance of such studies appears further in that they impress us with the fact that each child is constantly changing. We have to learn that to-day the child is different from what he was yesterday, and that he will be still different to-morrow, even if we are not able to say exactly in what the differences consist. A system of sensitive organs and responding organs the child remains; but he is now sensitive to some things, and will gradually become indifferent to them, while becoming at the same time susceptible to influences that to-day do not exist for him. This, in general, is true of play and games, of interests, of companions, of attitude toward parents and others. Practically, this means that the kinds of stimuli or appeals that are effective at one time will not serve at another; there are no permanent tricks that we can rely upon to work all the time over a very great period.

In the *Outlines of Child Study* (pp. 4–6, first ed.) appears a condensed schedule of the characteristic traits of the "average" child at each of several stages in development. It needs constantly to be borne in mind that these stages are not sharply separated from one another, that the traits noted show themselves in varying degrees and in many different ways, and that there is constant overlapping, so that a child may be relatively mature in some respects and relatively infantile in others, and still be quite normal.

In the following selections there are some brief descriptions of selected periods or characteristics, with constant emphasis upon the need for accepting the fact of change in all children, and for studying the individual child without prejudice either as to his past record or as to the standards set by other children or by the average[1]. Lee probably overemphasizes the time factor; but in general it is true that each day brings its special dangers and opportunities.

PHYSICAL DEVELOPMENT*

Naomi Norsworthy and Mary Theodora Whitley

[**Heredity and environment.**] — The general opinion of both medical men and anthropologists seems at present to be that heredity is the more influential factor in determining stature, time of puberty, general development in height, weight, and other dimensions, and resistance to disease.

On the other hand this does not at all mean that environment has no effect. If certain elements in the environment make the exposure of children to contagion much more common than under other conditions, there can be no doubt that environment is detrimental to normal physical development. . . .

[**Growth and development.**] — Racial and family heredity determine for the individual his ultimate height and weight, while the sex largely determines the rate of growth; so that statistics derived from a study of French boys would not be applicable, say, to Japanese girls. . . .

The rate of increase, in both height and weight, gradually diminishes from birth, though by no means evenly. There is a slight retardation in growth at about six years old, an acceleration at eight (boys) or seven (girls), reaching a minimum rate at eleven (boys) and nine (girls). Following this period of slow growth is one of rapid growth, reaching its maximum at fifteen (boys) and twelve and a half to thirteen (girls). The increase in height up to the time of maximum growth is principally due to growth in length of legs; after that time the trunk grows rapidly. Rapid increase in height is followed by gain in weight. Development, *i.e.*, qualitative rather than quantitative change in the cells, should always follow growth. Times of rapid growth are times of increase in vigor and energy, hence these periods are of great educational value. Though periods likewise of high fatigability they are dangerous only in the way that a rapidly moving machine is in more danger than a slow moving one.

[**Influence of internal secretions.**] — We know too that, contrary to popular opinion, in cases of delayed puberty, the individual is not so tall eventually as those who begin to mature earlier; though the adolescent acceleration is more marked, it is briefer in duration. Other than the sex glands influence growth, particularly the thyroid. Any defect or disease in the thyroid, or its absence, is accompanied by a lack of growth and by a special kind of mental defect, both

[1] Compare "What the child brings to his reading," p. 152.

* From *Psychology of Childhood*, Chapter XIV. The Macmillan Co., (1918) 1924.

of which can, however, be remedied if treatment is begun sufficiently early by supplying the constituents in the diet that the gland should normally have secreted.

[**External conditions.**] — Climate and season affect growth also, climate in that taller races are found in the temperate zones, and season in that boys have been found to increase in height more in the spring and summer than in the fall, and to put on weight relatively more from August to December. . . .

[**Uneven development of organs.**] — The growth of the body does not proceed as a whole, but by parts and successively. The various organs seem to follow a rate and rhythm of their own, and to develop quite independently of other organs. Thus the time of maximum growth of one part may be the time of minimum growth of another. For example, the brain increases in size two or threefold during the first year, but only ten per cent more during the second year. There is a continued slow growth till puberty though by the sixth year it has almost reached adult size. By the twelfth or fourteenth year its growth has practically ceased, except for very slight increase even into the third decade. The muscles and intestines are largest in the fifth, the heart and lungs in the eighth decade. At birth the size of a cross section of the heart compared to a cross section of the large arteries is as 25 to 20; at puberty it is as 140 to 50; for the adult it is as 290 to 61. At fifteen years old a boy's limbs are relatively longer than they are either at eleven years old or in adult life. Detailed facts are too numerous to be given here, but that does not lessen the danger of lack of acquaintance with them on the part of the parent or teacher. For instance, they should know of the risk of too vigorous exercise of an eight- or nine-year old child while his heart is still small in proportion to his arteries; and that a child of six needs twice as much oxygen for his weight as does the adult. They should realize that the greater plasticity of the child's bones makes deformity from bad practice a very real danger. They should remember that boys are at every age superior to girls in lung capacity and in strength of hands. They should know that children of three require forty per cent as much food as adults although they are only about one fifth as large. The danger is of underfeeding or improper feeding, not of overfeeding. . . .

[**Individual differences.**] — The differences in the rate of growth in every organ of the body, the skeleton, and nervous system are important; but even more important for the individual child is the fact that there are large variations from any "average" rate of development within any one year. The number of years a child has lived is no sure sign of his physical development. In a group of boys fourteen years old some may be still in the prepubescent period, some may be at that time in the stage of transition, and some may be postpubescent. . . .

[**Sex differences.**] — It may be that girls are a year ahead of boys in physiological age by the time they reach school age, so that, for instance, a girl of five may be ready for school but her brother to be equally ready would have to wait until he was six. The question of the educational significance of this fact of lack of correspondence is by no means answered. In fact two difficulties

must first be met, *i.e.*, the relation between maturity and mental capacity must be definitely determined, and an agreement as to the best measure of maturity must be decided upon. The evidence we have on the correlation between maturity and mental capacity is in favor of a positive correlation, but the results are not final. . . .

[**Need for anticipating critical stages.**] — The lack of knowledge and of scientific facts of child hygiene and physiology has been evident. Some characteristics of various ages are recognized: for instance, that the sensory development of a child precedes the motor, and that the intellectual development follows both; that the lung development of the preadolescent girl is far inferior to that of the boy; that the development of the organs of reproduction with their correlated changes is the most significant fact of pubescence. But very much of such knowledge is only the result of observation, and is not scientific. For example, because of the changes taking place at adolescence the health of the girls has been shielded and guarded. But that is too late; the sex instinct, with its accompanying bodily changes, does not develop rapidly in a few months; it has the same characteristics as all other original tendencies — namely, a slow, gradual ripening. Moll claims that the beginnings of such development may be found among six-year-old children, and certainly a very large percentage of girls have matured by the time they are twelve and one-half years old. The time to guard the health of the girl, the time to build up vitality and resistance power is from nine years old on. To begin at twelve is to begin when the opportunity is passed. The same argument applies to boys, only they are a year or two behind the girls in age of development.

EMOTIONAL DEVELOPMENT OF THE CHILD*

William A. White

[**Self discovery.**] — During the first four years of life the infant yields unreservedly to its instinctive promptings, reaching out in all directions for new experiences and thus acquiring that background of information about the environment which is a precondition to further development. In addition to this the infant is also accumulating all those experiences which aid it in building up that concept of its own personality which is such a basic factor in the subsequent problems of life. The infant of a few weeks old, for example, has no way of knowing that the foot or hand it sees before it belongs to itself, is a part of its own body, any more than is the chair, or the foot or hand of some one else. Children not infrequently try to grasp the hand they see with the same hand, and actually cannot understand why, when they do so, the hand they were looking at disappears. Innumerable experiences of this and similar character are required before the infant learns just what are parts of its own body and what are not. Pain is an extremely useful experience in the progress of such knowledge, for the

* From *The Mental Hygiene of Childhood*, Chapter IV, "Stages of Development." Little, Brown and Co., (1919) 1923.

child learns over and over again, through painful experiences, the safe limit of its activities.

[**Dominance of hunger and pleasure in early period.**] — During all this period the instinct of hunger and the pleasure motive for conduct have unrestricted sway. Food is taken whenever hunger prompts and whatever is at hand is swallowed. In fact many things which are not food run the risk of succumbing to this fate, for the mouth is a very important organ of touch at this time. Not only is everything that gets within the infant's grasp at once put into the mouth, but its own hands and feet are treated in the same way. Thus there comes about a series of double sensations which are valuable in helping the infant differentiate itself from the environment. . . .

The taking of food is purely instinctive, not at all guided by intelligent choice of even the simplest character, so that the young infant is wholly dependent upon its adult caretakers as to what it will get. . . .

[**Absence of inhibitions.**] — The control of conduct by the pleasure motive is absolute for this period of development. It is an absolutism, however, which is shortly to be lost, never to be regained. The infant is without all of those inhibitions to conduct which the adult always preserves in some measure. It is without shame, for instance, and if it suits its pleasure will kick off its clothing and revel in nakedness, it matters not who or how many may be present at the time. It is the same about the movements of the bowels and the passage of urine. These bodily functions are performed in response to the normal physiological urge without thought of time or place. . . .

In the same way that the infant yields to the calls of nature in a natural and unashamed way, and shows no shame at its own nakedness, so it lacks other inhibitions to conduct and indulges its tendencies free from their influence. Curiosity about anything and everything that may be of interest is indulged without hesitation. . . .

[**Disregard of others.**] — The unqualified self-interest (selfishness) of the infant also comes to the fore undisguised and unashamed. A desire for the toy of brother or sister is acted upon at once by taking it away from its possessor, with perhaps no hesitation in administering a slap if necessary. Such assaults show besides a tendency to disregard the sufferings of others, for the crying that results from such conduct is unheeded. . . .

Jealousy is likewise a trait of this period of development. The infant craves affection and a younger child that requires a great deal of attention from the mother is genuinely and openly hated because it appropriates the attentions of the mother which the older infant not only wants for itself but previous to the arrival of the newcomer did have almost exclusively. Antagonism to the father may arise from similar causes because he takes the time and attention of the mother that the infant wants for itself. All of these interests of the child are self-centered, that is, are essentially selfish. Just as it had to learn to distinguish its physical self from other objects about it, so it has to learn that there are other beings who have similar sensations, feelings, and ideas. At first the infant has no conception of other selves and has slowly to acquire this knowledge, just as

it had to acquire a knowledge of its physical self as distinguished from other objects, by experience much of which is painful. . . .

[**Laying foundations.**] — This period of infancy with all its budding possibilities, all its beginnings, trials, and failures, its blazing of trails, and its fundamental formulations (time and space) is the most important period of life. This is the period when all the tendencies which are to be the motive forces in the future history of the individual acquire their initial direction; it is the time when the foundations for the future character are laid. . . .

[**The latent period — five years to puberty.**] — The amoral, asocial child of the period of infancy, guided solely by its instincts, undergoes changes at about five years of age, the effect of which is to bring the instincts into the service of cultural aims (moral and social). How much these changes are inherently necessary and thus are independent of outside influences and how much such influences are responsible for them it is impossible to state because all children seem to undergo them; but, too, all children are surrounded by similar conditions that make such conditions understandable.

[**Repressions.**] — These changes consist in general in the suppression, or more technically, the repression of the frank, instinctive tendencies, an effort to disregard their promptings, and a distinct effort to fit into conventional requirements and make the accepted moral and social standards goals for conduct. This involves an about face for the infant who has hitherto followed only selfish aims. The conduct which has been natural to him up to this time is now no longer indulged in, at least not openly, and if perchance he is discovered in any small self-indulgences his reaction is one of shame. . . .

[**Child acquires shame and disgust.**] — Shame and disgust are largely conditioned if not actually caused by the constantly repeated reactions of the adults in the infant's immediate environment. They invariably call the child to account for conduct which is not in keeping with their standards and by their exclamations and remarks indicate that it is either conduct to be ashamed of, or else that it is disgusting. Shame thus grows up, more especially as the typical reaction to matters sexual, and disgust as the typical reaction to things that are dirty, particularly that pertain to the functions and products of excretion. . . .

During the latency period, then, the selfish, instinctive tendencies drop into the background. They are by no means eliminated, however. They continue to exist but are kept out of vision by a system of espionage — repression. As strong and as effective as this repression may be, however, it is seldom strong enough to prevent at least an occasional breaking through when some one, mayhap, of the old, familiar activities outcrops in the conduct. . . .

[**Puberty — about fifteen years.**] — At the onset of puberty there is a great revolution in the affective life of the child. Particularly the sexual instinct comes again to the fore with redoubled energy and demands recognition. Not infrequently it is unable to find adequate outlets in acceptable forms of conduct and a considerable period of masturbatory activity is apt to characterize this period. This activity, however, if not excessive and prolonged, has not the

serious significance ordinarily given to it. The various pleasure activities of the period of infancy (exhibitionism, curiosity, etc.) may be reactivated now, with a special sexual coloring; they afford, as it were, already existing points of attachment for the more greatly enhanced sexual feelings which thus use them to gain an outlet in expression. Such avenues of expression, having been successfully used before, now lend themselves anew to the service of the child whose greatly increased necessities for expression, because of the outcrop of the sexual feelings, require all possible avenues to be utilized. . . .

[**Interest in sex.**] — The important progressive change in the conduct of the child which is also conditioned by the great increase in the sexual energies is the development of interest in the opposite sex and the growth of all that series of activities which are grouped together under the designation courtship. This is the beginning in the child of that interest in others which leads on to marriage, parenthood, the development of the so-called parental instinct, the maintenance of a family, and the education of children of its own and their projection into the world, even as it was educated in the family *milieu* and afterwards helped to establish itself in the world upon its own feet.

[**Social experience.**] — Inasmuch, however, as frank sexual experiences at this age of sexual awakening are still not permissible the instinctive tendencies towards others of the opposite sex have still to find a sublimated[1] form of outlet. During this period all of the social activities are brought into play (games parties, dances, picnics, etc.) still further to develop those relations between children which will more and more fit them for the coming experiences of courtship, love, marriage, and parenthood, and, too, lead on to better and better social adjustments which in later life will make for broad qualities of citizenship. . . .

The *ego* instincts are also being socialized. The absolute selfishness of the infant now has to give way to the demands of others to the end of harmony; and in order that certain desired activities (games) may be carried out, gluttony, uncleanliness, disorderlinesses of all sorts have to be brought into line to serve ends which are more desirable; therefore they give way.

[**Stages in sex interest.**] — In the development of the sex instinct several well defined stages are passed through. At first the child is interested solely in its own body, its own sensations, it is autoerotic. This is the period of frank interest in nakedness, urination, etc. — the period of infancy. Later it develops an interest (love) for others. This love, however, first goes to others most like itself, that is of the same sex and so is homosexual. This is the stage of Narcissism[2]. Then finally comes that development of object love which desires a beloved person of the opposite sex and so is heterosexual. The logic of this progression is apparent. The child can only get from a state of being in love with itself to being in love with some one else of the opposite sex by passing

[1] By sublimation is meant that process by which a given form of instinctive tendency is diverted from its immediate aim into activities which, while socially acceptable, are also more or less adequate substitutions for the acts instinctively desired.

[2] So named after the Greek legend of Narcissus who fell in love with his own reflection in the pool.

through an intermediary stage of being in love with some one else but some one like itself, that is of the same sex (homosexual). The individual who is stopped or delayed at this period of development is prevented from making those wider, larger adjustments which are essential to a rounded out biological career.

PROTECTION OF INFANCY*

ERNEST R. GROVES AND GLADYS HOAGLAND GROVES

Quiet is one of the most important factors in the environment of the baby during these first months. This means protection from jolts and jars, sudden or swift motion, and any sort of bustle or confusion, quite as much as loud or unpleasant noises. . . .

Fear and anxiety are easily communicated to the infant, on whom they make a deep and harmful impression. Any acquaintance with commotion and great excitement only tires the baby, producing in him a nervous fatigue that is detrimental to the building-up of a strong nervous system. This is applicable to joyful doings and the excitement that accompanies boisterous happiness, as well as to the constant upset and emotional stress of the poorly managed home.

STAGES OF DEVELOPMENT†

EDWIN A. KIRKPATRICK

[Passive beginnings.] — The first stage, which ends near the close of the first year, may be described as the *presocial* stage, during which the child is influenced by things and persons, as are animals, in an almost wholly objective way, and only slightly or not at all by the thoughts and feelings of the persons around him.[1]

[Steps to maturity.] — The second stage, which closes at about three years of age, may be designated as the *imitative and socializing stage.* During this period the child becomes more and more susceptible to mental influences and his mental states are determined to a considerable extent by the mental states of those around him.

The third stage, which culminates at about six years of age, may be designated as the *individualizing stage,* during which the conscious personality that has been developed during the previous period becomes more distinctly in-

* From *Wholesome Childhood,* Chapter I, "The Foundation Period." By permission of, and by arrangement with, Houghton Mifflin Company, the authorized publishers. 1924.

† From *The Individual in the Making,* Chapter III, "Stages of Development: General Description." By permission of, and by arrangement with, Houghton Mifflin Co., the authorized publishers. 1911.

[1] From the results of more thorough recent studies by the analytical method, most psychologists to-day would probably not agree with this statement. There is evidence that the infant is impressed by many of the happenings around him, even if he cannot understand what is going on. The emphasis remains, however, that the physical surroundings are particularly important; and that, before language develops, he is influenced by persons much as animals are — by their actions and emotions. [Ed.]

dividual and asserts itself, instead of merely assimilating the characteristics of others.

The fourth stage, ending at about twelve years of age, may be described as the *period of competitive socialization.* It is a period when a child is introduced to a wider social environment and in which the impulses to excel in competition are prominent and are brought out in association with others of the same age.

The fifth stage, culminating at about eighteen years of age, may be called the *pubertal* or *transitional period.* During this time the youth and maiden become more susceptible to many new social influences that formerly affected them not at all, and many and important interests develop that are characteristic of the sex and age.

The sixth period, ending at twenty-four years of age, may be designated as the *stage of later adolescence,* during which the individual is ushered into the larger world of thought and action and becomes prepared to take his part in the various activities of the race as a fully developed man or woman.

[**Stages not sharply set off.**] — It must not be supposed that what characterizes one of these periods is entirely absent in the others, but merely that it is more likely to be a prominent and more or less dominating factor during the stage of development to which its name is given. Neither must it be supposed that the change from one stage to another occurs at exactly the time indicated. The duration of the different stages is subject to great variations in different races, in different social conditions and still more in different individuals. When we know that some children begin their period of rapid growth at puberty, several years earlier than other children, it would be strange if we did not find greater differences in the age at which the various mental characteristics become prominent. It is believed that the order of development is less subject to variations; yet owing to the fact that some phases of development may be suppressed, some passed through very quickly, and others prolonged, there may in individual cases seem to be variations in the order of development.

It is probably true, also, that phases of development that have been passed may again, under certain conditions, become prominent at a time when other characteristics usually dominate. Only very marked variations from the degree and order of development at any age should, therefore, be regarded as abnormal.

[**Uneven rates of development.**] — While there is a constant gradual development in all lines there are accelerations and retardations in rate and many shiftings of outer and inner factors of development, so that those that dominate for a while and give a general trend to the whole process of development, are at a later stage subordinated to other factors.

Although the kind and rate of development in different lines and at different stages do not correspond, yet they are related to each other in such a way that modifications in one line or at one age may produce marked effects in other lines and at other ages. This makes it difficult not only to determine what the normal stages of development are, but to discover the causes of peculiarities, or seeming abnormalities that are found at any time in individual children.

[**Compensations.**] — There are also various ways in which lack of stimulus or activity in one line may be compensated for. For example, a child who has no companions may get similar stimuli from dolls, flowers, or animals, or from reading, and he who cannot engage in certain forms of physical exercise may do so in imagination and get some of the same mental and moral effects.

[**Opposite tendencies related.**] — Again, contrasting characteristics are really always closely related, hence boldness may be easily changed to timidity, suggestibility to contrariness, laziness to industry, etc. In this way the general direction of development of two children who are really in the same stage, may appear to be entirely different.

[**Study of childhood helpful without yielding rigid rules.**] — The science of genetic psychology will probably never become so exact that it will be possible to tell just exactly what a child with given native tendencies and surroundings will be at any given age, or just how he will be affected by any influence that may be brought to bear upon him. Yet at the present time it is possible to describe the inner and outer factors concerned and indicate what characteristics are likely to be prominent at any given age, with sufficient definiteness to help one in wisely dealing with children individually and in groups. Those who are looking for rules to be mechanically applied according to the age of children, will be disappointed with child-study both now and in the future, but those who are already studying children individually in the light of common sense and their own experience with them, may be greatly aided by the broader truths that are being formulated by scientists.

THE UNFOLDING POWERS*

JOSEPH LEE

[**The child changes constantly.**] — There is, as Froebel long since taught, and as the more prosaic psychologists are beginning to discover, in the life of the child, as in all kinds of life, a gradual unfolding and a special time when each power has its preferred opportunity to assert itself. There is a time for impersonation, a time for construction, a time for running games, as truly as there is a time for puberty or for the sixth-year molar. The sequence is as fixed in mental as in bodily growth. The whole tree is already present in the seed, but there is a budding-off time for each of the great branches of which its final form is to consist. Not only do the different instincts unfold at different times, but each instinct appears in successive incarnations. . . .

[**A critical period for each trait.**] — The stress that Nature lays upon certain impulses at certain times is not a casual or an isolated suggestion on her part. It means that she has made all her arrangements to have the prescribed exercises registered in actual growth at just those seasons. The brain centers that direct the prescribed activities are then being developed; the muscles and bones especially needed in their execution are getting their set and girth. It is the

* From *Play in Education*, Chapter XI, "The Four Ages of Childhood." The Macmillan Company (1915) 1923.

time at which precisely those exercises will *take*. And at no other moment will they take so well.

With some instincts indeed it is now or never: they cease altogether and leave no trace if not salted away in habit during their special period. William James believed that such was the general law of instinct, and cited to that effect, among other evidence, the fact that a chicken will learn to follow the hen, or apparently any kind of animal that walks before it, during the first few days after it leaves the shell; but, if advantage is not taken of this brief period to give the instinct a chance to operate, it will never learn to follow anybody. The instinct lapses, and if not registered as a habit while it is still in force, will have no permanent effect.

In man the more important instincts, at least, do not actually lapse, though some phases of them pass away. But their time of stress passes, and with it the time when they can be most effectively stamped upon the body and mind. If you want to make a baseball player or a violinist you must catch him young. . . .

[We must seize opportunity.] — In short the fact of first importance as regards the child is that he grows, that, like every growing thing, he passes through successive periods, and that a period once passed will not return. *Carpe diem*, make hay while the sun shines, strike while the iron is hot—proverbial admonition to timeliness applies with especial force in education. In matters of growth opportunity does not recur. When Nature asks your coöperation in her plans she means now; time is of the essence of the offer. In the development of the growing child potential faculties, in the form of instinctive impulse, appear each in its turn, asking to be woven into the fabric of his life. To the extent to which each impulse is followed the corresponding faculty is acquired, and the pattern becomes so far complete. If the prompting is ignored, the opportunity passes and the power it offered is foregone. An instinct must be made welcome when it knocks, or the man will never possess the power to give it utterance. It is true, the major human instincts, if thus neglected, do not absolutely lapse; they survive as vague desires, longings unfulfilled, a hindrance rather than a means of life.

In brief there is a tide in the affairs of childhood which taken at the flood leads on to Man — and which must be so taken if such destiny is ever to be reached. The fairies come bearing each her gift, but the child must reach out and take it or it is withdrawn.*

* Compare Chapter XX, "Instinct and Habit."

XVIII. THE CHILD AS AN ORGANISM

We find it extremely helpful to think of the child, especially in the early years, as a living organism, for this suggests in many cases what to expect and what to guard against, what to do as well as what to avoid. We cannot profitably treat the child either as a machine or as a miniature adult. Unlike machines and adults, the child is far from a finished product; indeed, the continuous change in his way of responding to treatment is often disconcerting and confusing to the inexperienced parent or teacher. Unlike the machine, the child refuses to stay put; he is constantly starting something for which we are not prepared — unless we are prepared to be astonished at nothing. Unlike the adult, the child cannot be reached by the appeals and the logic which we commonly assume to be the guides of human conduct.

Like all other living things, the child is first of all *unique*. That is to say, the human species has this much in common with other living species: no two are exactly alike. No matter how thoroughly we come to know childhood, we must learn always to know the particular child that concerns us. In the second place, the child is like other living things in being constantly *changing*. He is not only growing, but developing — changing in structure and in functions and in activities entirely because of something inherent, something happening within. And in the third place, the child is like other living things in that his growth and development are influenced by what happens to him from without: every experience may make a more or less important difference. The organism then has qualities and impulses and a direction of his own; but it is also subject to guidance or "education," as well as to obstruction and perversion.

GENERAL CHARACTERISTICS OF ORGANISMS*

EDWIN A. KIRKPATRICK

[Organism and machine.] — An organism may very well be regarded as a living machine composed of protoplasm, built in nature's factory, and fitted as are other machines for doing certain things. A machine is made in a comparatively short time and does not change its structure except in the way of wearing out, decaying, or breaking. An organism is a growth from small particles of

* From *Genetic Psychology*, Chapter I, pp. 5–8. The Macmillan Company, 1917.

other organisms whose ancestors have a long history of development, and it is changed by everything that it does into something somewhat different from what it was.

An organism differs from an inorganic machine in being self-running, self-feeding, self-repairing, self-changing, self-regulating, and self-producing. No machine or inorganic substance is capable of doing any of these things to any considerable extent. These characteristics may all be expressed in a sentence by saying that an organism possesses and maintains unity.

[**Unity of the organism.**] — A crystal has unity but does not maintain it. If a crystal is injured, it does not repair the damage; but if a plant or animal is injured, not too seriously, the damage is repaired. A molecule has unity which it maintains under certain circumstances, but with change of temperature and contact with other molecules, the unity may be broken, the atoms enter into new combinations and form a unity of an entirely different type. In an organism, on the other hand, though the molecules of which it is composed are continually changing, yet the unity of the organism is maintained. Indeed, change in the molecules is the means by which an organism maintains unity amidst changing influences. Death and disintegration result whenever the internal changes or activities are not of the right kind or degree to maintain unity among environing forces. The environing influences may modify the organism, but only when they kill it or cause it to cease to be an organism do they prevent it from maintaining its unity. The germ of an acorn becomes an oak, if it lives, and nothing else. Even when a part of a plant or animal is grafted on another, the tendency to preserve a unity of the original type of organism is evident; *e.g.*, a peach bud or branch produces peaches though growing on a plum tree.

[**Organisms dynamic.**] — The unity of an inorganic thing is also static as compared with that of an organism, which is dynamic. It simply resists external forces for a greater or less time, instead of giving forth and taking in material from the environment and organizing it as a part of itself, as does the organism. The unity of an inorganic thing once formed is not changed except in a destructive way, while the unity of an organism varies as it grows and passes through different stages of development. Even after it is mature, an organism is subject to some modifications in its characteristics and modes of maintaining unity.

Again, machines and molecules do not reproduce themselves, while organisms not only maintain their own unity but produce other organisms like themselves. This is perhaps the most distinctive of all their characteristics.

[**Plants and animals.**] — Between the two great types of organisms, plants and animals, there is no absolute distinction; but in general, plants maintain their unity by taking suitable substances from the environment and building them into their own structure, while animals take in objects as wholes, disintegrate them, incorporate into their structure what is suitable, and excrete the rest. Animals not only use the substance taken in for forming their structure, but they also utilize the chemical energy set free by molecular changes in maintaining the heat of the organism and in keeping its various mechanisms, especially the muscular, active; while plants use little or no energy in the movement

of organs and the maintenance of heat. Again, plants maintain their unity chiefly by slow growth changes that bring them more favorable and less unfavorable stimulation and more usable substances which are simply absorbed, while animals usually preserve their unity by movements of parts or all of the body in such ways as will secure favorable stimuli and avoid unfavorable, and they find and secure food, disintegrate and distribute it to different parts of the body by the actions of organs (antennae, feet, teeth, intestines, etc.) especially adapted to those purposes.

THE BIOLOGY OF CHILDREN IN RELATION TO EDUCATION*

Herbert S. Jennings

[**No two alike.**] — Examining closely a flock of children, the most extraordinary thing that we discover about them is the astounding diversity in their fundamental make-up; the amazing variety of type that nature has put into the collection. No two look alike, nor like any specimens in any other collection of children. It is only in the past few years that we have come to know, as a part of organized science, that this is no mere matter of superficial appearance; the diversity is in their very foundations, in their original constitution, in the very fiber of their being. It lies as much in their capabilities and tendencies, in their mentality and character, as it does in their physical features. . . .

[**Physical foundation.**] — Most, if not all, characteristics of living things, which show in one aspect as mental or moral or spiritual, show in another aspect as chemical and physical processes that can be observed. This plain fact does not imply that one of these aspects is more fundamental or important than the other; it implies nothing more than is implied by the fact which we all know, that in order to see, one must have eyes and the eyes must be opened. What is true is that when we can observe the physical aspect of any peculiarity, we can follow much more precisely what happens; we can determine the laws of development and action much more completely than when the physical aspect is hidden from us. . . .

The rules of development. — We must then see in our flock of children a set of diverse organisms — each endowed by nature with his own combination of powers; each with something that no one else possesses. We agree that what we must do is to preserve this variety; assist each child to so develop as to keep the advantage which nature has given him — an advantage which need not injure his fellows, for *their* advantage lies in other combinations. How shall we proceed?

The most important thing at first is to merely let their endowments blossom; let them unfold and show themselves for what they are, and with a vigor that shall make them avail. And to do this is to first make the children stout little animals, that can exercise their capabilities with full force; and that can resist the blights which hover ready to pounce upon them from every corner of the world.

* From *Suggestions of Modern Science Concerning Education*, Chapter I. The Macmillan Company (1917) 1921.

[**Energy and opportunity.**] — Two separate but related matters here deserve consideration: (1) No matter what combination of qualities nature has given to the child, if he has not the force, the physical means, for making it avail, it will help him little, for he will be like the hapless speaker . . . who possibly has excellent things to say, but who through weakness of voice cannot make them *carry* to his audience, so that they are wasted. An idea that flits through the mind of a weakling is nothing when compared with that same idea in the mind of a man with driving power; in the former it is a shadow, in the latter it may alter the world. (2) Similarly, no matter what combination of qualities forms the child's endowment, if these qualities do not develop, if they fall under any one of the blights that lurk for them, if the right conditions for their development are not given, the endowment will come to naught.

In most grown-up human beings many of the inborn capabilities have been cut off; much of the native driving energy has been repressed; much of the natural delight in work has been destroyed. The instinct of workmanship, as Veblen calls it, is one of the strongest that nature gives us, but many human beings have been so crippled that it is gone, and is replaced by a hatred for work. Heredity is, correctly considered, simply an inborn way of developing and acting under certain conditions; if the required conditions do not appear, heredity alone will not give you the endowment. What we next seek then is to know the conditions which will bring about the unfolding and vigorous development of what nature has concealed in the child.

In searching for these conditions, three important general rules of development must be our constant guides. These three I may call (1) the rule of the gradual and spontaneous development of the powers; (2) the interdependence of the physical and the mental; (3) the rule of "attention" in physiology and development.

[**Spontaneity.**] — (1) . . . Much of the power gained by the young human being as the years pass is not brought to him primarily by training, by learning, by the exercise of the particular faculty involved — but is a mere consequence of unhindered healthy development. After the child reaches a certain stage of development, it can do easily and quickly what it could not do even with much training at an earlier stage; and this silent unfolding may and should continue throughout life. Training is even harmful when it comes earlier than the development of the power which it tries to train; it must *then* be classed with the blights which cut off the development of the powers. To take a simple but familiar example, it is quite impossible to train children at an early age to do so easy a thing as to *sit still;* they have not developed the power of inhibition required for this. Later they develop this power and have no difficulty in the matter, even though not trained to do it. This is a type of what occurs throughout development. This principle of the gradual spontaneous development of power, with its practical consequences, is one which the teacher or parent must have continuously in mind, if he is not to be misled into serious errors.

The situation here is much like that which gives rise to so much sincere fraud in medical practice. We train the child; we "keep him at his books," and he

develops power — just as the doctor gives his patient drugs, and the patient recovers. But in both cases it is largely nature that has done the work, and indeed often in spite of the confinement at the books, or of the doctor's drugs. . . . Of course I do not mean to imply that proper exercise of the powers, that proper training, is not necessary at the right stage; with this we are to deal later. But what we must first see to is that the development of the powers shall take place in a healthy way, so that none are blighted, and so that there is force behind all of them.

[**Physical development.**] — (2) And this leads to our second rule of development. The outward evidence of the natural and complete unfolding of the young child is given in its physical development. The practical rule which we must follow is to keep the little creature growing, physically developing in a healthy way. Our method of education has been largely influenced by one of the most malignant of the superstitions of the dark ages; by the idea that spiritual and intellectual development is in conflict with physical development; that the elevation of the mental requires the debasement of the physical. We know now, as we know any other fact of science, that this is cruelly false. The physical and mental are bound together in their development; they are *practically* diverse aspects of one and the same thing; if you change one you change the other; if you blight one you blight the other. . . In the young child we can more readily watch the physical side of things, control this more directly, so that its condition must be the guide; when it goes wrong all goes wrong.

[**Concentration and diversion.**] — (3) Now to understand the conditions which bring about normal development of both the physical and the mental powers; to understand the enemies and dangers to such development, we must have in mind our third rule of development — what I shall call the rule of "attention." . . . Throughout development and all activity, both bodily and mental, . . . *only one thing can be well attended to at once.* . . . This means that when the energy or the "attention" of the organism is thoroughly engaged in one activity, physical or mental, other activities do not prosper. All the details of our lives are examples of this, and particularly in childhood are the examples striking. When the organism is taken up with intense emotion, particularly painful emotion, digestion stops, excretion stops, growth stops; respiration almost stops; thought of everything else stops; almost everything stops save that which ministers to the affair with which this emotion is connected.[1] Intense pain has a similar effect. So has intense mental application to a particular subject; the "attention" of the body as well as of the mind is taken from everything else; digestion, assimilation, excretion, growth, sensation, all are cut down. The rule is one that works both ways, or all ways. While deeply engaged in digestion, we cannot think or work well; and so of any other operation of our vegetative life. I have cited a few of the striking manifestations of this rule, but it is one that is operating at all times; one that we must think of at all times in its relation to the development of the child. A steady

[1] The intensely interesting book of Cannon, *Bodily Changes in Pain, Hunger, Fear and Rage,* gives the full analysis of this aspect of the rule.

pain or discomfort, as from diseased teeth or poor eyes, halts the rest of development, physical and mental, and weakens the resistance to disease in proportion to its severity and continuity. Anxiety, fear, unhappiness, whether resulting from harshness of parents or teacher, or from other conditions, have the same effect; mental and physical development and resistance are dragged back. Any derangement of one function takes the unconscious "attention" of the organism to that, deranging the performance of other functions. Driving the mental activities in directions for which development has not prepared the ground acts in the same way. Forcing too severe or too long-continued mental activity on the young organism halts the rest of its mental and physical development and lowers its resistance. These effects are not slight and hard to observe; they are the main things that decide health and development in the child. Almost all that we have yet to say will be an illustration of this principle.[1]

The conditions for development. — Now we come to the third matter that anyone who cultivates organisms must understand — the effect of the outward conditions and of different methods of treatment on development; how these conditions interact with the endowments, in accordance with the rules of development. We must first deal briefly with a number of requirements for development which are common to the child and all other organisms. . . . After showing the relation of these indispensable conditions to our problems, we will come to the conditions which are peculiar to the child.

Protection from blights. — Our school children consist of delicate organisms full of budding capabilities. As those buds slowly open they are tremendously susceptible to blights. And the world is full of blights. In the dark ages men used to think of the spaces of the universe as inhabited by malignant beings, demons, that lay in wait for human beings, pouncing upon those that were unprotected, and destroying or maiming them through what we call diseases; the disease was a living creature and the way to get rid of it was to drive it out, as you would drive out a snake or a wolf. It is extraordinary how nearly science has forced us to return to such a doctrine. The world *is* full of living beings that prey upon human kind and particularly upon children, blasting their budding powers, maiming them or stealing them away as really as the demons and elves and goblins of old were imagined to do; only now we call them bacteria. These bacterial blights destroy thousands of the human buds — the opening capabilities, — even when they do not destroy the child completely. We know them mainly in the so-called children's diseases and in other diseases, particularly tuberculosis. These are the most direct, the most pitiless, the most swift of the dangers which our children run; if all our labor is not to be vain we must watch and combat these blights. But what is the effect of our usual method of education — our schools — upon these bacterial blights? The school might from this point of view almost be characterized as a

[1] An analysis of the complex physiological processes, such as is given by Cannon (*l.c.*), is of course possible for everything that I have classed as a manifestation of this rule, so that the rule is perhaps a mere mnemonic device for holding together many things that might otherwise seem unconnected. I believe, however, that it serves this purpose well.

device for the exchange of blights, a device for delivering up all the children to all the blights that attack any one of them. . . .

Now, of course, we cannot completely avoid this difficulty, for children must begin some time, whatever the peril to life or limb, to mingle with their fellows. But what can we do to reduce the danger as much as possible? Of course we shall follow the directions of the medical men as to the best way to avoid the bacteria which produce the blights, and as to staving off the attacks of the children's diseases as long as possible. There is a still more fundamental matter. The chief thing we can do is to keep the child's resistance high. The bacterial demons are everywhere, but one child they blight, while another blossoms. The difference is one of resistance. The time will come when medical practice will be directed even more to the keeping up of resistance than to avoiding or killing bacteria. But what *is* resistance, and how is it to be kept high? Men do not yet completely understand resistance. But it is clear that resistance is due to an activity of the body in preparing, when attacked by enemies, substances which poison and destroy these enemies, without at the same time poisoning the body itself. . . . This process is peculiarly subject to derangement in many ways, and the cost of derangement is death or severe injury. Particularly is it subject to that general rule of *"attention"* which I gave above; if the powers of the body are too thoroughly taken up with other things; if there is continuous worry, fear, pain, hunger, cold, fatigue, nervousness, over-excitement, overstrain of any sort — the delicate task of preparing a chemical which shall precisely resist the attacking germ fails; the bud is blighted. What we can do then to resist these blights that lurk everywhere, bent upon destruction, is just what we must do to provide in other respects for a complete and vigorous development of the capabilities that lie in the children; because the capability of resistance follows the same rules as do the other powers. . . .

Nutrition — If an organism is to develop, of course it must be fed. This seems so much a matter of course that it comes as a surprise to find how much trouble it gives to properly feed any kind of developing organism that you are trying to cultivate. And children form no exception to this; indeed the problem of proper nutrition turns out to be for them one of the most difficult of all. Malnutrition, says one recent authority on school hygiene,[1] "is responsible for more degeneracy than alcohol. The greatest problem throughout childhood is that of feeding." The child, at least in civilized races, seems curiously inefficient in desiring and obtaining food of the right kind and in sufficient amount, and in properly assimilating such food as it obtains. The food habits and needs of the young child are rapidly changing as the months pass, and it seems to be almost impossible, both for the child and for his parents, to keep the adjustment exact. The result is that thousands of children, perhaps the majority — even including great numbers from the well-to-do classes — are ill-nourished. And the consequences are most serious. Development is directly weakened or pushed into wrong channels. But still more serious perhaps is the effect of

[1] TERMAN, L. M. — *Hygiene of the School Child*, p. 98. The Houghton Mifflin Co. 1914.

malnutrition in laying the child open to blights and to other dangers of a similar kind. Without proper nutrition the delicate operations necessary for preparing resistance to bacteria cannot be carried out; the defenses fail, and infections and other diseases are given the opportunity they seek; "malnutrition is the almost inevitable forerunner of tuberculosis, chorea, and many other diseases," remarks Terman.[1] The children in whom malnutrition results from lack of proper food have been greatly helped in many schools by the supplying of even simple lunches. But more common perhaps is the malnutrition due to absent or perverted appetite, and this cannot be remedied by supplying more or better food, nor by urging or forcing the child to eat when it is not hungry. For here our principle of "attention" comes into operation in most marked degree. Appetite is precisely this "attention" of the organism to food; it is the condition in which the energies of the body are prepared to engage effectively in the complex chemical operations of digesting and assimilating the food. If the body will not attend to the food taken — and this is what happens when food is taken without appetite — the chemical operations go wrong, and the food changes to poison. This "attention" of the body to food we call in its outward and sensible manifestation appetite, but it includes also the complex and coördinated "attention" of a host of internal organs, going through a most complicated set of chemical and physical operations to take care of the food. Now this complex process is one most delicately poised, most easily interfered with by the direction of the bodily "attention" elsewhere. Strong emotions of all sorts, and particularly such painful ones as worry, fear, anger, at once stop the processes; the details of these matters have lately been thoroughly studied by physiologists;[2] they are just as precise and definite as the fact that you can no longer see when the eyes are shut. Severe mental labor has the same effect; *strain* of any sort acts in the same way. Poor ventilation and lack of free activity are found to have most marked effects in decreasing this attentiveness of the body and its organs to food. All these things thus strike at the very foundations of development. Malnutrition is to be combatted in the same way as the bacterial blights — by all the measures required for bringing about free and full development of all the capabilities; that is, by relief from strain, by happy play, by activity in the open, and the like. . . .

The external conditions. — Besides nourishment and protection from blights, any developing organism must have the proper external conditions, particularly as to temperature and the nature of the medium — air or water — surrounding it. . . . In any warm-blooded organism, such as is the child, the maintenance of the correct bodily temperature is an absolute necessity for the proper carrying on of the bodily work, and there is in each of us a most extraordinary and elaborate regulatory system for keeping the temperature at just the right point. But this system can work perfectly only within certain limits,

[1] *Op. cit.*, p. 99.

[2] See the recent books of Cannon, *The Mechanical Factors in Digestion* (New York, 1911), and Carlson, *The Control of Hunger in Health and Disease* (Chicago, 1916).

and we all know for ourselves that it is necessary to aid it all we can, by proper clothing.

A reduction of the bodily temperature, even though in but a part of the body, lowers the efficiency of all the bodily operations, including particularly a lowering of resistance to bacteria; and also produces apparently a derangement of our apparatus for regulating the bodily heat. This is why cold is so great an enemy to the proper development of the child and of other warm-blooded creatures. One of the classic experiments on bacteria was that of Pasteur, by which he showed that cold causes decrease of resistance to disease germs, so that organisms which are cooled off are overcome by infections that ordinarily do not attack them. (Fowls cooled below their normal temperature were susceptible to anthrax germs, though normally they are not.) This is apparently what happens in the condition known commonly as a "cold"; many sorts of blights get a start in this condition, when without the cold the child would resist them. It is quite true that . . . "what we call a cold is really a bacterial infection," but there is absolutely no ground for the conclusion that exposure to cold or drafts has nothing to do with this condition. Exposure to cold does lower resistance, . . . precisely to such infections of the respiratory tracts as are characteristic of "colds." . . . Keeping the bodies of children properly protected and at the normal temperature is one of the fundamental things demanded for development and for proper carrying out of all bodily functions; neglect of this is bound to stunt development and at the same time to open wide the doors to the bacterial blights which destroy so many of the budding capabilities of our flock of children.

Closely related to this is the matter of ventilation. . . . The effects of poor ventilation are not mainly due to the lack of oxygen, nor to the increase of carbon dioxid, nor to the presence in the air of poisons given off by the body. On the contrary, the chief troubles in poor ventilation seem to be: (1) a high and uniform temperature; (2) a high degree of moisture in the air; (3) lack of movement of the air. What is mainly needed is that the air shall move about so as to carry away the warm moist layer next to the skin — at the same time giving a stimulus to the skin through slight changes in temperature. If this is not done, the organism ceases to function well; the nervous system suffers; attention and work become impossible; the inner work of the body is attended to as badly as is the outer work; the apparatus for regulating temperature gets out of order; resistance to bacteria is lowered and most serious consequences may result. One of the most striking effects of poor ventilation is that of decreasing appetite; that is, it causes the body to cease attending to nutrition, and so attacks the very foundation of resistance and of development. The required conditions are of course best met in the open air, where the temperature is correct; and this appears to be one of the chief grounds for the great value of open-air schools — though it appears probable that in the open air there are other factors that conduce to vigorous natural development.

[Physical injuries.] — We must barely mention here the important matter of the effect on development of direct physical injuries, such as those due

to bad conditions in the teeth, in the tonsils, or the like. The underlying principle here is the one we have before set forth: any source of pain or discomfort, besides possibly presenting an opening for infection, diverts the attention of the growing organism from the processes necessary for its normal development. We all know that this is true for mental development; we cannot "pay attention" to things otherwise worth while, if we are in pain. It is equally true for the internal physical processes. Any source of pain or irritation diverts the bodily "attention" from the processes of nutrition, of growth, or resistance — bringing thus a host of attendant evils. Such troubles therefore require immediate remedy.

Exercise of the powers. — The things that we have thus far mentioned — freedom from blights, proper nutrition, proper temperature and other external conditions, — are requirements which the child has in common with other organisms. But the child differs from other organisms in a way that enormously complicates the problem of cultivating it, for in the child there are the germs of an immense number of diverse and complex capabilities, which must all be developed if he is to become a man instead of a vegetable. Now there can be no complete development of these powers without their exercise, and as a matter of fact our formal education is devoted almost entirely to the training of these mental powers. . . . But along with these adaptive powers, the child must also develop physically, just as must a turnip or a calf. It must have a strong and normal body which can stand the strain of life, or the foundation is cut from under its intellectual powers. And this is what presents the great difficulty. Our general principle of attention holds here as it does everywhere: while the organism attends to one of its capabilities or functions, it cannot attend to the others; while it is attending to its mental development, the physical functions are cut down. In our eagerness to develop its mental powers, we are inclined to overdrive these, with the result that the vegetative life is interfered with; nutrition is weakened, resistance is lowered; growth slowed, and the very foundations of all life are undermined. . . . The problem for solution is: How can we carry on efficiently the cultivation of the higher powers, without at the same time interfering with the physical foundation on which they rest? . . .

[**Physical activity.**] — In order to keep the proper balance, the part of physical activity in our system of cultivation requires increase all along the line. Keeping the child sitting still for hours at a time, as we do in our schools — and particularly when this is done in stagnant air, as is usually the case — has a most marked and immediate effect in decreasing appetite (and thus shutting off nutrition), in decreasing respiration, in decreasing resistance to blights, in a general suspension or slowing of physical development. These are not mere loose general statements; precise facts and figures showing these effects could be presented if time permitted. The sitting posture when long continued is most abnormal and harmful for the growing child; to demand it for many hours a day is a crime. From this point of view the changes required in our system of cultivation are: more activity, frequent alterations of position, frequent periods of play or of moving about, more manual work in place of in-

active study. But all these matters are closely interlocked with the points we are to take up next.

[**Interest.**] — In exercising the child's powers, mental as well as physical, experimentation has come slowly and painfully to the same result which nature indicates most directly to each one of us. To develop any capability, there must be something comparable to the appetite that we find necessary for the proper nutrition of the body; the organism must have an appetite for its work. Such readiness to devote itself to the work we call interest; and work done in this condition gives pleasure. One of the most striking things in the development of modern physiology is its gradual recognition of the great value of those pleasurable emotional states which may be classified together under the abused word, "joy," and of the harmfulness of the opposite emotional states — anxiety, sorrow, worry, fear, pain, and the like. The condition of happiness, of "joy," is that in which development is unhindered and flourishing; in which the functions are proceeding harmoniously; while worry, fear, unhappiness are the marks of the reverse condition of affairs; something is blocked and is going wrong.

[**Moderation and variety.**] — Yet such is the complexity of our problem that interest itself may lead to danger. Too close and long-continued attention to one function — too severe application to one task — necessarily leads to injury and block in the other functions; and also to fatigue and exhaustion in the one carried to excess. The young child cannot attend long and intensely to anything, no matter how interesting, without injury. We have all heard the saying of the psychologist, that the dull and uninteresting teacher is a necessity in our schools, for the children could not possibly stand attention to vividly interesting teaching for the whole schoolday. Close continuous attention is a most exhausting activity; children take refuge from the impossible strain by the frequent spells of inattention that so perplex the conscientious teacher, by a secret diversion of their thoughts to play, or by mere vacuity of mind. We ought to recognize frankly this fact in the physiology of childhood by shortening the periods of work along any particular line; by suitable alternations of work with play or repose. . . .

[**Danger of overstrain.**] — The difficulties and dangers are a hundredfold multiplied when we try to drive the child into activities for which at the stage of development which it has reached it is not prepared, and for which it can therefore have no interest; or when we try to force long periods of activity upon budding powers that can stand but slight exercise for a few moments. We must remember our principle of the gradual development of the powers; some powers are ready for exercise when others are not, and only harm comes from trying to drive into activity those not ready.

This driving of the powers beyond what they are prepared for leads to the most serious difficulties, particularly if the child is very conscientious or nervous, and so aids in driving itself. Forced into this one channel, the bodily energy stops attending to its other duties. Appetite disappears; the body no longer can attend properly to nutrition; the chemical processes of the body get into

confusion; poisons are produced instead of protective substances; resistance is broken down; the bacterial blights gain a footing; the nervous system functions badly. The beginnings of such troubles are shown in the twitching of the face or limbs that are so common. We hardly realize how close we keep our children in school to this precipice of overstrain; many of us see even the manifest symptoms appear without realizing what they mean.

Indeed, I believe that few of us really grasp the part played by *strain* in the life of human beings. It is strain that makes men and women hate their work, instead of liking it, as is natural. It is this that disgusts the young human being with the activities in which at first it was fiercely interested. It is strain that drives humanity to some of its most disastrous practices. It is now well recognized that the immediate physiological effect of alcohol is to release from strain and repression, and the obsession of humanity for alcohol is due to the fact that they will have that relief at all costs. The use of tobacco again is due to its temporary easing of strain. It is this demand for relief from strain that leads to orgies of various sorts, in its minor aspects to outbreaks of profanity; in more extreme cases to the tendency to "go on a spree" at intervals. All these matters have been elaborated recently in an interesting work by Patrick.[1]

In childhood the harm resulting from strain is enormously multiplied, since it cuts off in the bud the development of powers which after their unfolding and extension would form a great part of its life. The child must be protected from such overstrain at all costs.

[**Importance of play.**] — There is one method of the exercise of powers that is almost free from these dangers, and that is what we call play.[2] For years play was looked upon merely as a sort of inevitable waste of time among children but scientific study of the cultivation of these organisms has shown that play is in most respects the best, the ideal form of the exercise of the powers. Particularly is this true for the younger children, but it is in large measure true as they grow older. Play is the activity which their own natures suggest and guide; it is varied as their diverse budding capabilities require; and when free it is not carried beyond the point where one activity interferes with the development of others. The young child perhaps learns more and develops better through its play than through any other form of activity. Opportunity for varied play under healthful outward conditions in beyond doubt the chief need of children; comparative study of the mental and physical development of children to whom full opportunity for such play is given shows striking superiority, as compared with children to whom such opportunities are denied.

[1] Patrick, G. T. W. — *The Psychology of Relaxation.* The Houghton Mifflin Company. 1916.

[2] See Chapter VII, Play.

XIX. THE EARLY YEARS

It is the purpose of this section to picture the newborn child with his "original" tendencies and capacities, and to clarify the processes by which these tendencies and capacities become both manifest and modified. The physical aspects of the care of infancy are therefore disregarded, although some hints on this side are contained in the selection from Cameron's book. In this we are impressed by the close connection which exists first between the physical states and the mental states of the child as well as of the mother; and second between the state of the mother and that of the child. We are further impressed by the readiness with which a vicious circle can be established, and by the difficulty with which habits acquired in early infancy can be broken up.

To many readers both the methods and the results of Watson's work will appear at first in direct violation of common sense — that is, of the views which we accepted without question from our earliest years. Nevertheless, unbiased observation of children and careful attention to our own behavior will be likely to confirm his conclusions in large part. We can all get much help from the illustrations of early fixations, and from an understanding of the methods by which they are formed.

NONLEARNED HUMAN BEHAVIOR*

Charles W. Waddle

[Types of behavior.] — In general the behavior of human beings is of two main types, the nonlearned and the learned. Within the first class it is customary to speak of (1) the organic reflexes (automatic acts), (2) the reflexes proper, and (3) the instincts. . . .

[Organic reflexes.] — First, we have such processes as those of respiration, circulation, digestion, secretion, and excretion, which once set in operation continue uninterruptedly throughout life. They are largely independent, except for minor fluctuations, of any influences other than those which make for healthful conditions of the organism as a whole. These organic processes which are from the beginning practically serviceable and relatively perfect,

* From *An Introduction to Child Psychology*, Chapter V; Chapter VI, "The Play of Children." By permission of, and by arrangement with, Houghton Mifflin Company, the authorized publishers. 1918.

care for the vital needs of the organism and are best termed the *organic reflexes* (sometimes spoken of as automatic acts). Most of the activities of this class are rhythmical, have their stimuli within the organism itself, and make for the healthful activity of the entire organism.

[**Neural reflexes.**] — Second, we have such acts as sneezing, winking, coughing, the knee jerk, the adjustment of the ciliary muscle of the eye, and other simple responses of parts of the organism to simple stimuli external to the organism. These, too, are nonlearned responses which are practically serviceable from the first and uniform throughout life, and are commonly called *reflexes*.

[**Instincts.**] — Third, such complex activities as crying, recoiling from injury or threatened injury, fighting, feeding, curiosity, and the like, are quite as characteristically performed without learning as those of the two preceding types, and yet differ from them sufficiently in structural basis, in the nature of their stimuli, and in complexity to deserve to be differentiated from their prototypes. It is customary to speak of them as *instincts*, or *instinctive acts*.

[**Complex action.**] — There are other much more complex acts and processes, such as walking, talking, acquisitiveness, play, self-abasement, constructiveness, destructiveness, and many others, which are not so easily placed and yet are unquestionably in large part nonlearned tendencies. Many of them are complexes of several instincts operating simultaneously, or of instincts and habits, so that it seems desirable to speak of those which do not properly fall into the preceding classes as *activities with an instinctive basis*. . . .

[**Basis of learning.**] — Of all the inborn tendencies none is of greater importance for education than that to respond in motor activity to the influences of environment. From birth, and even before birth, impulsive movements — movements without external stimulus — give evidence of the capacity of the child to be active, and through activity to come into educative relationship with his environment. This is the essential mark of life itself. Spontaneous movements of hands, arms, legs, stretching of the body, apparently purposeless movements of the eyes and head, facial movements, vocal play, and many others are among the simplest and earliest manifestations of this tendency. Without such tendencies education and training could do nothing. This is the raw material with which education begins. In a very true sense education itself consists in the changes made in an individual through his motor responses. Nothing has been more clearly revealed in our study of child life than that education "comes in through the muscles." . . .

[**Play in infancy.**] — The characteristic plays of infancy are those of sensory and motor experimentation. Any objects, including the parts of his own body, that serve to stimulate the senses of touch, sight, hearing, taste, smell, or temperature, will be persistently used by the infant for that purpose. Handling, pulling, pushing, sucking, tasting, dropping, picking up, pounding, climbing, running, swinging, exploring, and, in the latter part of the period, simple imitative and dramatic activities, and many similar responses, give suitable and pleasing exercise to muscles and sense organs. There are no games, the plays are largely formless, the interests varied and fleeting. . . .

The activities of the period are almost purely individualistic, self-centered, even selfish, and their results are chiefly development of the sensory capacities and the fundamental muscles.

THE ORIGINAL EMOTIONS OF INFANCY*

John B. Watson

[Experiments with infants.] — The superstition that the human infant is too fragile for study is giving way to a more sensible viewpoint. The human infant is not the hothouse plant that it is supposed to be. Continued observation by a trained and sensible experimenter is feasible and does not do the child the slightest harm. We have had several hundred newborn infants under observation at the Johns Hopkins Hospital. There never has been the slightest accident under experimentation, nor have the babies suffered the slightest ill health from the continued observations.

After a good deal of observation, especially during the first months of life, we are led to the conclusion that we have heretofore greatly overemphasized the number of original emotional reactions. We are struck by their absence and simplicity rather than by their profusion and complexity. We are inclined now to believe that the fundamental emotional reactions can be grouped under three general divisions:

(1) Those connected with fear;
(2) Those connected with rage;
(3) Those connected with what, for lack of a better term, we may call joy or love.

Fear.[1] — The principal situations which, apart from all training, will call out fear responses seem to be as follows: (1) sudden removal from the infant of all means of support, as when one drops it from the hands to be caught by an assistant; (2) loud sounds; (3) occasionally, when an infant is just falling asleep or is just ready to waken, a sudden push or a slight shake, or the sudden pulling of the blanket upon which it is lying. The responses are a sudden catching of the breath, clutching randomly with the hands (the grasping reflex invariably appearing when the child is dropped), sudden closing of the eye-lids, puckering of the lips, then crying; in older children possibly flight and hiding (not yet observed by us as "original" reactions). The above mentioned group of reactions appears at birth. It is often stated that children are instinctively afraid in the dark. We have not so far been able to gather any evidence to this effect. When such reactions to darkness do appear they are due to other causes; darkness comes to be associated with the absence of customary stimulation, noises, etc. From time immemorial children have been "scared" in the dark, either intentionally or as a means of controlling them. This is especially

* From *Suggestions of Modern Science Concerning Education*, Chapter II, "Practical and Theoretical Problems in Instinct and Habit". The Macmillan Co. (1917) 1921.

[1] Compare Chapter IV, "Fear," p. 39.

true of children reared in the South. In other words, fear, in situations other than the above, is due to bad training. Children thus learn to fear, through mishaps of training not always under the control of parents, many things which they should not fear.

Rage. — Observation seems to show that *the hampering of the infant's movements* is the factor which, apart from all training, brings out the movements characterized as rage. If the face or head is held, crying results, quickly followed by screaming. The body stiffens and fairly well coördinated slashing or striking movements of the hands and arms result; the feet and legs are drawn up and down; the breath is held until the child's face is flushed. In older children the slashing movements of the arms and legs are better coördinated, and appear as kicking, slapping, pushing, etc. These reactions continue until the irritating situation is relieved, and sometimes do not cease then. Almost any child from birth can be thrown into a rage if its arms are held tightly to its sides; sometimes even if the elbow joint is clasped tightly between the fingers the response appears; at times just the placing of the head between cotton pads will produce it. The slightest constraint put upon the head by the soft pads would often result in a disturbance so great that further experimentation had to be discontinued for a time.

Love. — The original situation which calls out the observable love response seems to be the stroking or manipulation of some erogenous[1] zone, tickling, shaking, gentle rocking, patting and turning upon the stomach across the attendant's knee. The response varies. If the infant is crying, crying ceases, a smile may appear, attempts at gurgling, cooing, and finally, in slightly older children, the extension of the arms, which we should class as the forerunner of the embrace of adults. The smile and the laugh which Freud connects with the release of repression (we are not denying that in the case of adults this may be true) we should thus class as original reaction tendencies intimately connected from infancy with the stimulation of the erogenous zones.

[**Emotions and impulse to action.**] — While these three types of emotional expression probably do not exhaust the child's repertoire, they are more fundamental than any others we are likely to come across. When these emotions go wrong or are poorly controlled, we find the greatest difficulty in starting and controlling that enormous body of habits which must be formed by every child.

Our work is leading us more and more toward the view that emotions are not useless things put here by some unkind fate merely to disturb the even tenor of our ways, but that when properly controlled they can be made to serve practical uses — as *incentives* or *drives* to many types of action. In testing the grasping reflex of infants we found that in very many cases the child could not at first support its full weight, but if by *hampering its movements we could produce rage, the muscular strength suddenly increased and the child would immediately support its whole weight,* and in other cases could sustain its weight for a much longer period of time. In the throes of the major emotions we do actually possess greater muscular strength and endurance than at other times.

[1] That is, "love arousing."

[**Relation to training.**] — This illustration forces upon us the question: Is there any experimental method now at hand for the utilization and control of the emotions? (1) Many of the tasks which the child has to do are intrinsically unstimulating, and yet such tasks must be learned. Furthermore, in learning them great endurance is often called for. (2) Again, with children whose emotional life has been warped by improper training, many objects and situations call out emotional activity where emotional activity is neither called for nor needed. Our problem in (1) calls for the *attachment* of an emotion, while in (2) it calls for a *detachment* or breaking up of an emotional response. Our quest then is for a method whereby we can both attach emotions to situations at will and similarly detach them from situations where they are not useful. It is possible that the method of the *conditioned reflex* will give us the solution.

[**Conditioning of a reflex.**] — If our finger is suddenly pricked or shocked with an electric current, the finger draws back immediately — there appears a defensive reflex. Now a gentle sound, say that of a tuning fork, will not call out such a defensive reflex of the finger. But if an experimenter sounds the fork and simultaneously pricks the subject's finger on several occasions, the sound alone will in time come to cause the finger to jerk back. In this same way certain objects and situations in our daily life which originally have nothing to do with emotions come later to stir them up by a process of substitution. Many of us show fear reactions to flashes of lightning. I have never seen a child show these reactions, even to flashes of sunlight in a dark room. Loud noises, however, will produce the fear reaction even in very young children. The flash of lightning is usually followed immediately by thunder. Hence in a short time we begin to react to the flash of lightning as we would to the thunder. A stimulus which originally produced no reaction except a closure of the eyes now produces an extremely powerful reaction. The conditioned reflex thus serves to explain why it is that although the number of original emotions is very small, they still play, through habit ramifications, such an enormous rôle in life. Suppose now that there are originally only a few situations which will call out rage in me as an infant — for example, constraining my movements, holding my nose, etc. In a short time the mere *sight* of an individual who holds me badly or hampers my movements will set off the emotional reaction. Finally, more and more remote stimuli serve to set off all the movements. In a similar way many thousands of objects and situations which originally had no intrinsic value for the arousing of our major emotions come finally to possess that power. Thus it comes about that we often misshape the child's emotional life by forcing upon it too many exciting emotional attachments and even harmful ones, such as fear, rage, etc.

THE PRE-SCHOOL PERIOD*

Arnold Gesell

[**Importance of the early years.**] — The pre-school period is biologically the most important period in the development of an individual for the simple but sufficient reason that it comes first. Coming first in a dynamic sequence it inevitably influences all subsequent development. These years determine character, much as the foundation and frame determine a structure. . . .

Almost from the beginning it is social, emotional, moral, and denotes the organization of a personality. The infant is not only acquiring perceptions and motor coördinations; he is acquiring attitudes toward things and persons, prejudices, inclinations, habitual preferences, inhibitions; he is incorporating modes of behavior which do not, of course, constitute a mature personality, but which psychologically are at the core of personality. On every level of behavior, the physiological, the sensory-motor, and the higher psychical, he is acquiring both healthful and unhealthful habits of activity. Though he may not learn to read in the pre-school years, he is mastering the alphabet of life. . . .

It is true to the modern dynamic concept of the mind which holds that every action is conditioned by previous action. Man is neurologically a bundle of neuron patterns, and psychologically a bundle of habits, complexes and conditioned reflexes. The patterns and complexes which are first formed have a remarkable tendency to persist, particularly those which are highly colored emotional and closely knit to instinctive tendencies. . . .

[**Health factors.**] — We are to-day only in an embryonic stage of development with reference to the supervision of the health of young children. Some day our present provisions will seem meagre, indeed, for it will be taken for granted that the whole pre-school population should be reached, and that the total developmental welfare of the child shall come definitely under scrutiny and guidance. Even now it is becoming clear that our supervision should have more concern for the mental and conduct aspects of development, and that it should aim to apply at least the elementary principles of mental hygiene.

[**Mental health.**] — The principles of mental hygiene are less nebulous and fugitive than is commonly supposed. It is not impossible to develop simple procedures in connection with health-center consultations, public-health nursing, and home visitation which will disclose many instances where the mental health is endangered or where the course of mental development is subnormal. The periodic health examinations should, in time, broaden into developmental examinations. They should be made to include a psychological inquiry into the health habits, the dispositions, capacities, and personality traits of the child, so that errors of development may be detected, and so that the parents may, from the beginning, assist the child to achieve mental as well as physical health. Many factors at the basis of healthy development, such as eating,

* From *The Pre-School Child*, Chapter I, "Significance of the Pre-School Period"; Chapter XII, "The Organization of Pre-School Hygiene." By permission of, and by arrangement with, Houghton Mifflin Company, the authorized publishers. 1923.

sleeping, play, and social reactions, have to do with habit and personality. Even in very young children health depends upon personal hygiene, and in the last analysis pre-school health supervision must reckon with those intimate aspects of healthful living which will yield only to educational control.

[**Periodic examination.**] — The most promising method of approach for such control is the periodic developmental examination in consultation with one or both parents. Systematic parental group instruction in the educational psychology of child care and standards of normal-personality development will also achieve results. This important field of combined medical and educational effort must be developed in the future if we are to organize a well-rounded complete health service for the pre-school child.

DISSOCIATION*

Edwin B. Holt

An innate tendency or purpose of an infant is to put out its hand to touch fire. If the mother is by, she holds back the hand (*her* purpose) before it reaches the flame. There is a hint for the child, here, of right and wrong. If the mother guards the child unremittingly, and every time restrains the hand before the uncomfortable warmth begins to stimulate the child's own tendency to withdraw, the child will never be burned and may eventually (in a way to be described) acquire the habit of stopping short before reaching the flame. But this cautious conduct will not be guided by (be a function of) the heat of the flame, for the child has had no experience of this. The child's general conduct toward fire will then be partly a function of the immediate properties of fire (its color, position, shape, etc.); but partly also of a something else (really its mother), which may or may not figure explicitly in the child's field of consciousness. The mother has set a barrier between the child and a portion of reality; and forever after the child will be in some measure impeded in its dealings with fire. The child's withdrawal becomes a withdrawal from the mother's hand and not, as it ought to be, a response to (or function of) the flame itself. Freud, like others before him, calls this '*dissociation*': The precautionary response which should be 'associated' with fire is dissociated therefrom, and transferred to something else; in our case to the mother. Take this mother away, and the child knows no caution with regard to fire.

Or again, if an equally unremitting mother lets the child put out its hand toward the flame and takes care only that the hand by too great momentum or an accidental lurch does not actually come into the flame, the child will not be burned and its own mechanism of withdrawal will be exercised not through the mother's interference but through the direct action of the flame's heat. The child's conduct toward fire becomes integrated, and is solely a function of the actual properties of fire. Ten years later you shall hear the first mother shouting, "Bobbie, don't you dare put your hand so near the lamp,

* From *The Freudian Wish*, Chapter III. "The Wish in Ethics". Henry Holt & Co. (1915) 1924.

and if you touch those matches again your father will whip you." And the second mother will be saying, "Bobbie, go get the matches now and light the lamp, and set it down on the center-table."

NURSERY OBSERVATIONS*

Hector C. Cameron

[**Freedom in infancy.**] — The impulse to develop tactile sensation and precision in the movements of his hands compels the child with irresistible force. It is foolish to attempt to repress it. It is foolish, because it is a necessary phase of his development, and, moreover, a passing phase. No doubt it is annoying to his elders while it lasts, but the only wise course is to try to thwart as little as we can his legitimate desire to hold and grasp the objects, and even to assist him in every way possible. But the mother must assist him only by allowing free play to his attempts. To hand him the object is to deprive the exercise of most of its value. . . . The worst result of the continual repression, which may be constantly practised in the mistaken belief that the grasping phase is a bad habit which persistent opposition will eradicate, is the nervous unrest and irritation which it produces in the child. A passionate fit of crying is too often the result of the thwarting of his nature, and the same process repeated over and over again, day by day, almost hour by hour, is apt to leave its mark in unsatisfied longing, irritability, and unrest. Above all, the child requires liberty of action. . . .

[**Consistent treatment.**] — In all our dealings with children we must know what we may legitimately expect from them, and judge them by their own standards, not by those of adult life. We cannot expect self-sacrifice in a child, and, after all, when we come to think of it, obedience is but another name for self-sacrifice. . . . Every one who has the management of little children must above all see to it, whatever the degree of stringency in discipline which they decide to adopt, that their attitude is always consistent. In reality the little child is peculiarly sensitive to blame, if he is not reproof-hardened. It is hardly necessary to use words of blame at all. If he is asked kindly and quietly to desist, much as we would address a grown-up person, and does not, he can be made to feel that his conduct is unpopular by keeping aloof from him a little, by disregarding him for the time being, and by indicating to him that he is a troublesome little person with whom we cannot be bothered. The little child has not power of self-criticism. He looks at himself with the eyes of elders. Whatsoever we think of him, say of him, even fear for him, that he is apt to become. In accordance with the reputations which spring up in the family circle concerning him, he moulds his conduct. If his lack of self-restraint, or initiative, or application is daily bewailed in his presence, the fault is perpetuated and ingrained. . . .

* From *The Nervous Child*, Chapter II, "Observations in the Nursery". Oxford University Press (1919) 1925.

[**Avoid confusion.**] — A child of eighteen months is not too young to be talked to in a quiet, straightforward, sensible way. Only if he is treated as a reasonable being can we expect his reasoning faculties to develop. . . . Yet how often do we find facetiously-minded persons confound their reasoning and confuse their judgment by foolish speeches and cock-and-bull tales, which, just because of their foolishness, seem to them well adapted to the infant intelligence. . . .

[**Avoid strain and irritation.**] — Stripped of all that is not essential we see the problem of the management of children reduced to the interplay between the adult mind and the mind of the receptive, suggestible child. That which is thought of and feared for the child, that he rapidly becomes. Management plays an important part in all the mental processes of children, and in their physical condition as well. Mothers should understand that good temper and happiness mean a proper management, and that constant crying and fretfulness, broken sleep, refusal of food, vomiting, undue thinness, and extreme timidity often indicate that something in this direction is at fault. The unstable mind of the child is so sensitive that cerebral fatigue and irritability are produced by causes which seem to us extraordinarily trivial. In the little life which the child leads, a life in which the whole seems to us to be comprised in dressing and undressing, washing, walking, eating, sleeping and playing, it is not easy to detect where the elements is nervous overstrain lie. Nor is it as a rule in these things that the mischief is to be found. It is in the personality of mother or nurse, in her conduct to the child, in her actions and words, in the tone of her voice when she addresses him, even in the thoughts which pass through her mind and which show themselves plainly to that marvellously acute intuition of his, which divines what she has not spoken, that we must seek for the disturbing element. The mental environment of the child is created by the mother or the nurse. That is her responsibility and her opportunity. The conduct of the child must be the criterion of her success.

[**Emotion and physiological processes.**] — Emotional states of all sorts — grief, anger, anxiety, or excitement — put a stop to the process of digestion or interfere with its action, so that the sense of appetite is absent, and the taking of food is apt to be followed by discomfort or pain or vomiting. No doubt good digestion leads to a placid mind, but it is equally true that a placid mind is necessary for good digestion. Every nurse or mother should cultivate an off-hand, detached manner of feeding the child, and should patiently continue to offer the food without uncalled-for comments or exhortations. Let her always remember the force of suggestion on the child's mind, and that a confident manner which never questions the child's acceptance will meet with acceptance, while a hesitating address, from fear of the impending refusal, will be apt to meet with refusal.

[**Avoid solicitude.**] — Children who fall a prey to uncontrolled crying, cry on because they cannot stop when they have begun. They do not then cry purposely or with a fixed intention, desiring to attain some object. They cry because their minds are not at rest, but are irritated and over-wrought by the

happenings of the day. . . . It is at least one good plan with a little child to turn the light out, and, treating the whole incident in the most matter-of-fact way possible, lightly to stroke his head or pat his back rhythmically without speaking. With older children, if the crying is more purposeful and less emotional, the mother may busy herself for a little with some task in the room, ostentatiously neglecting the storm and making no reference to it. If she speaks to the child at all she should do so in a matter-of-fact way, referring lightly to other matters. If only she can convince him that his conduct is a matter of indifference to her, the victory is won.

[**Contrariness.**] — Obstinacy, or the negativistic attitude is provoked in the child when control is inefficient; when there are frequent and repeated attempts at control and a constant failure to achieve it. This negativism is a symptom of nervous unrest which he catches from the unrestful atmosphere in the home. To combat negativism, parents and nurses must pass more into the background and allow the child free play.

[**Exhibiting.**] — In "showing off" we have an exaggeration of the natural desire which all children feel to be noticed by their elders. The devices by which children will endeavor to attract attention and to make themselves the centre of the picture are innumerable. They can be brought to nought in one way only — by neglect. No one must appear shocked or amused at conduct, however outrageous. Children of this type may be noticed and encouraged when good, but when naughty they must be ignored.

XX. INSTINCT AND HABIT

Many of the acts which an infant performs when stimulated are nonlearned, that is, they are performed by practically all children the same way the very first time. Moreover, some of these acts enumerated in the selection from Norsworthy and Whitley are quite beyond voluntary control. In other words, some acts are not learned in the first place; and we cannot learn to control them later. Thus, we cannot learn to close or open the pupil of the eye at will, to blush or turn pale, to reverse the swallowing reflex, to secrete saliva or other digestive fluids. On the other hand it is possible to modify many of the primitive reactions in ways that are of practical importance. The sucking infant, described by Koffka, reacts at first to the contact of the nipple on the cheek or in the mouth; the presence of the food supply stills the cry for food, before the food can still the hunger. The mother, day after day, several times a day, responds to the child's cry by calling to him before presenting the breast. Before many days have passed the child stops crying when he hears the mother's voice; he does not wait to touch the breast; he does not wait to be raised. On hearing the voice the child starts the sucking movements of his lips. Analogous observations made on dogs show that digestive fluids begin to flow "in anticipation" of food upon a certain tone being sounded or upon the perception of some other signal.

We should note here that it is quite unnecessary to suppose that the baby "recognizes" the mother's voice, or that the dog "recognizes" the dinner bell. From experiments it would seem rather that unconscious associations become established between the act in question and the "signal" or stimulation, which need have no natural relation to the stimulus that normally sets up the action. This substitution of any stimulus for the "natural" one or the establishment of special *conditions* for a natural action is typical of the whole learning process; we say that *the reflex becomes conditioned.* Through all his life the child makes his progress by the modification (1) of the conditions that set up a given act, and (2) of the way he reacts to a given stimulus or stimulation.

As White points out, in a very general way, conduct impelled from within tends to become fixed, now in one way, now in another. This tendency to fixation is described by some writers as the capacity to

learn, or to form habits. There are two main aspects to consider: (1) the sources and characteristics of these primary or unlearned acts or *instincts* and (2) the methods by which they become fixed and more or less automatic reactions or *habits*.

When it comes to stating more precisely what an instinct is, or how it works, psychologists and biologists agree only in considering them parts of the constitution of the organism at birth, or as residing in the structure and properties of the nervous system and its connections. Some have analyzed instincts into chains or reflexes, supposing that the stimulus or condition that puts an instinct into operation sets off one reflex, that this in turn (or the effect which it produces on some organ) sets off the next reflex, and so on to the end of the series. Koffka and other psychologists, however, emphasize the idea that in instinctive action the child or the young animal behaves always as a unity, and not in a succession of separate acts. When a young bird that has been hatched and reared under artificial conditions, never having seen a nest, proceeds to build a nest out of materials never found in nature, it builds like others of its species — that is, instinctively; but the various acts which it performs are related to the whole task of building the nest; they are not merely a succession of movements that somehow result in a nest.

Thorndike lays emphasis upon the need of recognizing native instincts and capacities and their variations in degree, and of utilizing these drives or impulses in the cultivation of intellect and character, at the time when each tendency becomes prominent. Without attempting to classify the instincts, he indicates that some should be stimulated or encouraged, that others should be restrained or inhibited, but that for the most part the education and training of children consists of directing or guiding the impulses into forms of conduct that are useful. Exception may be taken to the implication that some of the native impulses or instincts are themselves either "good" or "bad." Indeed, Thorndike himself calls attention to the notion that "apparently injurious" or annoying instincts may have bound up with them valuable traits and that children may therefore need merely redirection of their impulses. It would be more helpful then to think of all natural tendencies to action or feeling as subject to training into useful conduct, useful attitudes, useful ways of thinking, and capable also of forming injurious habits of thinking, acting, feeling.

Habit is then the mode of acting, feeling, thinking, acquired by the child through all that happens to it and through all of its own actions in response to what happens to it.

THE CHARACTERISTICS OF ORIGINAL NATURE*

Naomi Norsworthy and Mary Theodore Whitley

[**Types of original responses.**] — The individual when born is equipped with potentialities of character, intellect, and conduct, because of the preformed connections or tendencies to connections present in his nervous system. These unlearned tendencies which make up the original nature of the human race are usually classified into automatic or physiological actions, reflexes, instincts, and capacities. Automatic actions are such as those controlling the heart-beats, digestive and intestinal movements; the contraction of the pupil of the eye from light, sneezing, swallowing, etc., are reflexes; imitation, fighting, and fear are instincts, while capacities refer to those more subtle traits by means of which an individual becomes a good linguist, or is tactful, or gains skill in handling tools. However, there is no sharp line of division between these various unlearned tendencies; what one psychologist calls a reflex or a series of reflexes, another will call an instinct. It seems better to consider them as of the same general character but differing from each other in simplicity, definiteness, uniformity of response, variableness among individuals, and modifiability. They range from movements such as the action of the blood vessels to those concerned in hunting and collecting; from the simple, definite, uniform knee-jerk, which is very similar in all people and open to very little modification, to the capacity for scholarship, which is extremely complex, vague as to definition, variable both as to manifestation in one individual and as to amounts amongst people in general, and is open to almost endless modification. . . .

[**The structural foundation.**] — These unlearned tendencies which constitute the original nature of the child have certain characteristics in common; because they are a function of the nervous system they are mechanical and constant. They all exist because of connections in the nervous system, and therefore they are unconscious and uncontrolled in their initiation. The nervous system acts like a machine — indeed it *is* a machine, and in so far as it acts independent of training or experience, the result must be mechanical. A current is started in the retina of a nine-months-old baby by a glittering object held in front of him; compelled by the structure of his nervous system he must snatch at it, not because he wants it, not because he wills to do so, but because he is thus made, he cannot help it. Not at all a matter of volition or of conscious attention, the act is merely a matter of the connection of neurones. In so far as tendencies are unlearned, this must be true, whether the tendencies concerned are the simple definite reflexes, or whether they are the more complex and vague capacities. This is an important fact for the student of child psychology; for many of the mistakes in the training of children are due to a lack of comprehension of this principle . . .

[**Instincts depend upon growth of nervous system.**] — Another characteristic true of the majority of these original tendencies is that they are delayed,

* From *The Psychology of Childhood*, Chapter II. The Macmillan Company (1918) 1924.

that is, they are not present at birth. Then, as Pillsbury says, "One may recognize the food-taking instincts, the vocal protests at discomfort, but relatively few others." Of course, the physiological operations necessary for the life of the infant are active, but practically all of the so-called instincts and capacities appear later. Their appearance is dependent on the growth and ripening of the connections between neurones. . .

In discussing this point of the delay in the appearance of original tendencies, it has been customary to talk of them as if they appeared suddenly, certain ages being the time above all others for certain instincts and capacities to mature. . . From all studies that have been made — whether of the simple and definite instincts, or the more complex and vague capacities — the law seems to be one of gradual rather than of sudden maturing. . . .

[**Instincts transitory.**] — General psychology also teaches that instincts are transitory, that by the laws of their own development, uninfluenced by what happens to them, they will wane and pass away.[1] The general implication of the discussion is, that these original tendencies are present and active but for a short time, and then pass, unless they are fixed as habits. . .

Against this idea Thorndike points out that "Two forces, other than the law of transitoriness, must be considered, before attributing the ebbs in man's activities so exclusively to it. The first is the force of new situations — changed circumstances about man — rather than a changed nature in him. The second is the force of changes in his nature due to special acquisitions — learned habits — not to mere losses of transitory instincts and capacities."[2] If the adult was surrounded by the same situations which surround the child, if society expected no more of him — meted out its approval and disapproval as it does to the child — would he not exhibit many of the instincts and capacities that are supposed to be the heritage of the child alone, and to pass away? And again, the change in activities may be but the same fundamental instinct, perfected, turned into new channels because of the added satisfaction gained by such changes.

That these two factors rather than transitoriness of original tendencies do explain much of the difference between the activities of children and adults is proved by the fact that it is hard to find instincts that are transitory — that have really gone. Give them but the opportunity and the so-called childish interests and instincts appear in most adults. . . . That inborn tendencies do unfold, flourish, and decay according to laws of inner growth is undoubtedly true, but the unfolding is much more protracted and the decay much less perceptible than it has been customary to suppose. This is especially true of the common fundamental human traits and interests. If this is true, the educator can no longer shift so much of the burden of responsibility on to the shoulders of a Nature that brings possibilities on the stage of Life only to remove them. The traits, interests, and capacities that are necessary to form into character, conduct, and intellect are in the possession of every child for years; the responsibility for their use and development rests with the educator.

[1] See "The Unfolding Powers," p. 185.

[2] Thorndike, E. L. — *Original Nature of Man*, p. 265. Teachers College, 1913.

[**Instincts are crude.**] — Another characteristic of original responses is their crudity. Children are often called "little savages," and so far as their inherited make-up is concerned, that is what they are. . . . The original traits and interests of man are not such as fit him to live in a civilized community in the twentieth century, and therefore the fact that these tendencies are modifiable is of tremendous importance. On this fact alone rests all the civilization of the world, all the culture of the ages, all the promise of the future. Here is the field and the function of education: to seize upon this capital and use it; to modify and direct the original capacities and instincts of children so that they are fitted to live in the best which adult society has to offer, to appreciate and to add to it. . . .

[**Habit and learning.**] — The bonds in the nervous system by means of which a man is sensitive, or acts, or thinks, have themselves certain tendencies or characteristics, the most important of which is that one which results in permanent modification, known as learning, or habit. This characteristic has been generally called "plasticity." Man above all other animals possesses this something, and children are characterized by it to an extreme degree. Plasticity means the power of neurones to be sensitive to what happens to them, and to be changed permanently thereby. Of course, it is the synapses (or connections between neurones) in particular that are so affected. This fact of the plasticity of the connections, together with the richness both as to number and variety of man's original equipment, accounts for his supremacy over all animals in power to learn. . . .

Both the definite bonds and the plasticity of such bonds are necessary to explain the difference between man and the lower animals in respect to learning; for learning has always to do with the modification of some definite response of thought, feeling, or action. . . .

[**Importance of early training.**] — The great plasticity of the period of infancy and early childhood must result in the formation of habits. Whether the parents know it or not, whether the teacher realizes it or not, the very nature of the child's nervous system necessitates learning. It is affected by all that happens to it, and something is happening every minute of the day. . . .

Not only is the plasticity greatest in early childhood, but it is greater in lines of muscular habits than it will ever be again, and further, sensori-motor bonds are retained longer than any other kind; therefore, without any doubt, the years before nine are preëminently the ones in which to establish good physical habits. The hygienic habits of eating and sleeping at regular periods; of evacuation; habits of cleanliness and tidiness; habits of posture, carriage of the body, and of walking; habits of language, both of the mother tongue and modern languages; habits of the use of tools and implements — this is the period when all such are formed. If the habits are good, the child has made a splendid beginning in the race of life, he has capital the benefit of which he will feel as the years pass; if the habits are bad ones, just the reverse will be true, and it must be one or the other. Children in these early years

cannot help forming habits; for, as has been said before, it is the nature of their nervous systems to be modifiable. . . .

[**Habits involve feelings.**] — For any desired habit we cannot trust to mere repetition; it must be repetition *with satisfactory results*. Neutral consequences or unpleasant accompaniments will not succeed in establishing a habit. Children must not be expected to learn spelling words by repeating them over and over again to themselves with no different result to their consciousness when they repeat correctly from what they experience when they repeat incorrectly. Many times the last line on the page of the old-fashioned copy book was worse than the first, and the last page no better than the first page. Practice will not make perfect unless satisfaction follows the variations that are in the direction of the ideal. Good impulses must be definitely rewarded, and undesirable impulses must fail of achieving satisfaction. Too often this maxim is violated by such practices as granting children their requests if they tease long enough, paying attention to troublesome children and those who are trying to "show off," while ignoring the good, well-behaved ones. Other misuses of the law of effect are such customs as giving children poetry or Bible passages to memorize as a punishment, exaggerating the value of a promised reward, forgetting to comment on an improvement, quoting a child's impudence in front of him as though it were commendable, and the like. . . .

[**Guidance from without.**] — Many of the habits which it is worth while for children to form seem to them to be of no value, and therefore, of their own accord they do not exercise them. Some one to whom their value is evident must provide the opportunities. . . . With little children satisfaction should follow immediately the activity it is supposed to reward. It would be unsafe to defer rewarding a child of five for good pronunciation or clean hands until the close of school; and similarly to keep a child of seven waiting for his reward for the correct holding of his pen or any other habit until the end of the week or month would be foolish. In either case, the child will, of course, be delighted with his pleasure; but the point is that it is not closely enough connected with the working of the particular synapsis to help fix the right discharge.

THE FUNDAMENTAL INSTINCTS*

William A. White

[**Interest is selective.**] — Of all the various aspects of the environment towards which our activities might be directed some few only are selected and become the objects of our interest. Why is this? What is the explanation of this selective interest? To approach this question we must recognize the fundamental tendencies towards activities, the sum of which we call conduct. These tendencies we shall call *instincts*.

Different authors have reached different conclusions as to the number and character of man's fundamental tendencies, that is, those tendencies to action

* From *The Mental Hygiene of Childhood*, Chapter II; Chapter III, "The Development of the Child." Little, Brown and Co. (1919) 1923.

which cannot be analyzed any further, which cannot be split up into simpler components. The most recent thought, however, tends to reduce them all to expressions of but two prime instincts which are characteristic, not only of man, but of all living things namely, the self-preservative or ego-instinct and the race-preservative or sex-instinct. The various activities of the child will, therefore, all occur in response to one or other of these instincts, the operations of which are thus of the first importance to understand in order to understand the child, and it goes without saying that the child must be understood if any consistent and intelligent effort is to be made to direct and train it. These two instincts then supply the motive powers for conduct. The immediate object of the one, the ego-instinct, is to gain domination over the environment; the immediate object of the other, the sex instinct, is to gain pleasure. . . .

[**The ego-instinct.**] — The ego-instinct shows itself very early in the attempts which are constant to dominate the conditions of the environment. Crying is a means employed, not only as an expression of discomfort, but as a means to bring that discomfort to an end. Inasmuch as the child is surrounded by persons who love it and try to satisfy its every want, it develops all sorts of expressions and signs calculated to make them do its will. A sign of impatience when the rattle is dropped brings it at once back to its hand through the solicitous attention of the mother or nurse, who picks it up and restores it. Then the child throws the rattle down, charmed at the magic of its control, only to find the same sequence of events repeated. Such experiences develop a tyranny over the persons of its environment by His Majesty the Baby, until finally, if for no other reason, as a result of the necessities inherent in the relations themselves, there must come a break in the manifestations of its seemingly magic power. The nurse is too tired to respond, the realities tend to be borne in upon the mind of the child, and it thus is forced to seek other and better methods for bringing its desires to pass. It must perforce learn more and more of the real properties of persons and things and succeed or fail in molding them to its purpose in proportion to its ability to deal with them as they really are, rather than as it might wish them to be. Children who are humored and pampered in this period are prevented from acquiring this necessary experience and carry over into later periods of their development all of those attributes which were developed to command others and so become domineering and selfish, and also are without that capacity for either appreciating or understanding the realities or adjusting themselves according to their limitations and demands.

[**Development of love interest.**] — The love interests of the child undergo a similar development as manifested by the objects of its attachment. The love at first has an equally limited, even perhaps a more limited field for attachment, being limited to the person of the mother, who is practically the only person with whom the child comes in contact. The mother being the first love object is therefore of supreme importance in the love life of the individual, the development of which ever remains conditioned by this first experience. The mother too as source of nutrition is also the first object towards which the hunger instinct is directed, and so in this sense is doubly important as a starting

point for all those interests of the child which are directed outside its own body.

As development proceeds, the changing aspects of the child's love interests can be seen by noting the increasing number and varying kind of love objects upon which it is projected. . . Nor are animate objects the only ones that come in for this treatment. The child ascribes life to the inanimate objects of its environment and treats them accordingly. . . . In this way the love of the child is led from love object to love object over a path . . . in the direction of those activities which will ultimately lead to parenthood itself and the development of the parental, instinctive love activities and to the complete unfolding of the personality.]

THE STARTING POINT OF DEVELOPMENT*

Kurt Koffka

[**Unlearned movements.**] — Immediately after birth the child is able to suckle and swallow its milk. When the nipple is placed between its lips this characteristic behavior either begins at once, or within a few minutes, during which less appropriate movements are being made. Suckling is not so simple a reaction as it might at first seem; for it requires the exact coöperation of the muscles involved. The lips must surround the nipple so as to exclude air, and the movements of sucking must take place with a rhythm of the contracting and expanding muscles which is in time with the movements of swallowing; and yet "of all the movements of the 'suckling,' hardly any is so perfect from the beginning as that which gave him his name." . . . Certain modes of behavior have been discovered in the study of animals which originate neither in experience nor in deliberation. These are called *instinctive* movements, and sucking can be assigned to this group. . . .

[**Simplicity of early movements.**] — In a consideration of the instinctive movements of new-born infants, the most striking thing to be noted is that the infant makes very few movements, and very few well-developed serial activities which can be called "instinctive." Stern[1] singles out from among the activities of new-born infants an instinctive "attraction" which draws the child towards different stimuli from the very first day of its life. Thus, an infant whose cheek is touched with the finger quickly turns its head in such a way that the finger is brought into contact with its mouth. Even upon the third day after birth, before any actual contact had been made, the nearness of the mother's breast exerted this attraction in the case of Stern's oldest daughter — the stimulus apparently being based upon sensitivity to odour. Similarly, intensive light-stimuli will cause the head to be turned in the direction of the light. . . .

* From *The Growth of the Mind*, Chapter III. Kegan Paul, Trench, Trübner & Co., Ltd., London. — Harcourt Brace and Co., New York. 1924.

[1] Stern, W. — *Psychologie der frühen Kindheit bis zum 6ten Jahre.* 1914–1921. p. 34.

In possessing a complete picture of the infant's first responses, it is of no great importance whether we follow Stern in accepting the instinct of attraction as being the only one besides suckling which asserts itself during the first weeks of life, or add to these two the movements of avoidance which Preyer observed in his son on and after the fourth day whenever the left breast, which he found it uncomfortable to nurse, was offered to him. Even the addition of other movements affords as an inventory of the instincts functioning from birth only a very paltry list as compared with the instincts of many animals standing much lower in the scale of development. "The really pitiable helplessness of the new-born human being is accounted for by the dearth of ready-made instinct mechanisms," says Bühler[1]. . . .

[**Instincts can be modified.**] — The conclusion that man, in a general way, possesses fewer instincts than any other animal has, however, been disputed. James in particular has tried to demonstrate the contrary. . . . In characterizing reflexes as stereotyped instincts a very important difference between these two modes of behavior is emphasized; for while typical reflexes, like the pupillary reflex, are not at all influenced by the rest of one's behavior, just the opposite is true of instincts, which are greatly modified by individual experience during the lifetime of the animal. Chicks just hatched from the shell will peck at all sorts of objects within reach, provided they are of a certain size. Hence, if one places before the chick a cinnabar caterpillar, which is readily distinguishable by vision on account of its alternating bands of black and gold, the chick will at once peck at it. But the caterpillar is immediately rejected, and the chick wipes its beak as a token of disgust. If the experiment is repeated after an interval of say, one day, most chicks are already disposed to inhibit pecking before the caterpillar is attacked. Lloyd Morgan[2] has fully described this transformation of an instinct by experience; a transformation which may take place after a single experience. The same investigator has also observed that young birds learn in this way to avoid pecking at their own fresh excrements.

[**Tropisms can be modified.**] — Another example can be given from a much lower stage in the animal series. It is well-known that stereotyped modes of behavior, called tropisms, can be observed in lower forms of life. These may be characterized briefly as a positive or negative behavior with respect to certain stimuli; that is, some stimuli are sought, while others are avoided. A cockroach possesses a negative photo-tropism, that is to say, it avoids the light and makes its abode in dark places. The experiment was made of stimulating a group of these insects, gathered together in the dark, by an electrical shock; the result was that the insects congregated thereafter on the lighted side of their cage. But the original tropism was not necessarily annulled on this account, any more than a chick loses its pecking instinct after an unpleasant experience with a cinnabar caterpillar, and, indeed, when the insects were removed to another and a differently constructed cage, they again took up their

[1] Bühler, K. — "Abriss der geistigen Entwicklung des Kindes," *Wissenschaft und Bildung*, Vol. 156, p. 46. 1919.
[2] Morgan, C. Lloyd — *Habit and Instinct*, p. 41. Edward Arnold. 1896.

position on the darker side.[1] Tropisms are, therefore, subject to modification even with organisms quite low in the scale;[2] but reflexes, such as pupillary reflex cannot be thus altered.

[**Instincts in action affect each other.**] — Returning now to the instincts, an important inference can be drawn from this peculiarity. Since the instincts are influenced by the total behavior of the organism, it becomes more difficult to recognize them the more numerous are the dispositions an organism may possess and employ other than instinctive. For under these more complicated circumstances a purely instinctive tendency can no longer assert itself, but must operate merely as one among many factors in the total behavior of the organism. To maintain, therefore, that a man is provided with a great abundance of instincts does not mean that we shall find in him, as we do in other animals, a series of relatively fixed courses of movement originally tending towards unknown goals. But it does mean that, despite the enormous individual differences determined by birth and environment, certain general tendencies are still discoverable in human behavior. And although these tendencies appear in different ways under different conditions, they still give evidence of certain peculiarities common to all men. . . .

[**Instincts transitory.**] — One peculiarity of instinct should be mentioned, however, upon which James placed great emphasis. This is the so-called transitoriness of instincts. Many instincts would seem to have only a limited term of existence. They appear at one definite point of time and disappear at another, although their coming and going is not abrupt but gradual. If these instinctive dispositions are not allowed to function during the course of their existence — if they do not work themselves through the individual's behavior so as to constitute habits, as we say — they will disappear, never to return.

James derived his law from general observation, but it has since been tested by experiment. Yerkes and Bloomfield observed the behavior towards mice of kittens that had been fed with milk and with meat and fish, for the most part cooked. In the course of the second month all eight of their kittens, coming from two different strains, showed the normal type of behavior towards mice — the one strain earlier and the other later — quite like any ordinary cats, although these kittens had never seen a cat react to a mouse. The investigators conclude, therefore, that the instinct to kill mice appears usually at the end of the second month, and sometimes even a month earlier. This investigation is of special interest because, a few years before, another experiment upon the behavior of cats was carried out in the same laboratory by Berry who, among other things, dealt with this same problem. As a result of his experiments Berry reached the conclusion that, although kittens have an instinctive tendency to run after running things, they must nevertheless *learn* to kill mice, since their instinctive tendency does not carry them to this extent. The apparent contradiction in these results is explained, however, by the fact

[1] Kafka, G. — *Einführung in die Tierpsychologie auf experimenteller und ethnologischer Grundlage.* I. p. 466. Leipsic, 1914.

[2] This conclusion is also maintained by McDougall.

that Berry's animals were already five months old when they first came in contact with mice. It would seem, therefore, that the instinctive disposition noted by Yerkes and Bloomfield in the second month had by the fifth month disappeared, which gives us a very pretty example of the transitoriness of instincts.[1] Similar exact observations in the case of man are lacking, and whether they are possible, in view of the greater complication of human behavior, we can not say.

INSTINCTS AND CAPACITIES*

EDWARD L. THORNDIKE

[**Instincts need guidance.**] — To teach boys and girls without paying heed to the equipment of instincts and capacities which they already possess apart from teaching would be as foolish as to sail a boat regardless of the direction of the wind or to build a house regardless of the material at hand.

Education should at times stimulate and favor inborn tendencies, at times inhibit them, and, most frequently of all, direct and guide them. The capacity for active thought and reasoning, for instance, needs encouragement; the teasing and bullying instinct must be inhibited; the inborn tendencies to curiosity and sympathy must be directed into useful channels and transformed into habits of intelligent thinking or sensible and noble action. Mere greed of knowledge is of value only in its possibilities; to pity everything and everybody may be as truly a vice as to pity no one.

[**Instincts to be used when ready.**] — Education may also be made more and more economical in proportion as it utilizes the forces of natural tendencies to attain its ideal ends. Whenever we work with rather than against nature the task becomes easy and the burden light. Fractions become easy with the help of apples and blocks and knives and jig-saw because the instinctive tendencies to attend to concrete objects and to enjoy physical action and manipulation are called into service. . . .

Just as the delayed appearance of inborn tendencies makes too early teaching wasteful, so their transitoriness makes too tardy teaching fruitless. The manual dexterity of the pianist, for instance, must be acquired early in life if at all. The instincts and capacities important in education are, however, for the most part long-lived, and if not suppressed by actual ill-treatment, persist through the years of school life without special stimulation from teachers. So with instincts of action, curiosity, the love of outdoor life and sport, emulation, and many others.

[**Ways of dealing with instincts.**] — Harmful instincts and capacities are weakened or inhibited by *disuse* (by depriving them of exercise, by not allowing the situations which would evoke them to appear), *substitution* (by forming

[1] WATSON, J. B. — *Behavior, an Introduction to Comparative Psychology*, p. 125 f. Henry Holt & Company. 1914.

* From *Principles of Teaching*, Chapters III and XI. 1906. Reprinted. A. G. Seiler, New York. 1922.

the habit of meeting the situation in some other way) and *by punishment.* Thus the tendency of a child to chase and torment a kitten may be inhibited by giving the child no kitten to play with, or by teaching him early to stroke and feed the kitten, or by beating him in case he does pull its tail and throw stones at it.

Disuse is convenient and is an excellent method to employ when the harmful tendency is transitory, but it is never quite sure. *Punishment* is ineffective in the case of very strong instincts. To be of service in any case, it must be so administered as to connect the discomfort closely with the harmful act. *Substitution* is in most cases by far the best method for the teacher's use. Habits of care for pets are the best preventive of cruelty to animals; to divide a class into two groups and give marks to the groups instead of to individuals — to substitute, that is, team emulation for individual emulation — may be the best cure for selfish ambition and envy; for a restless class manual work is better than scolding.

[**Are there "bad" instincts?**] — Some instincts apparently injurious may have bound up with them valuable traits of intellect and character, and consequently may require encouragement and especially redirection. The annoying questioning of very young children is part and parcel of a general intellectual impulse that is a chief source of mental growth; the disobedience and defiance of boys in their teens, often very troublesome to school and family life, is to some extent at least a necessary accompaniment of the general instinct of independence and mastery which comes at adolescence and which is essential to vigorous manhood; awkwardness and lack of courtesy may be necessary features of a modesty which would suffer if they were artifically overcome.

Since individuals differ in the nature and the amounts of their capacities and instincts, the particular equipment of each boy or girl, as well as the general fund possessed by human beings as a species, must be allowed for by the teacher. The general capacity for response to visual stimuli gives reason for the tremendous use of visual stimuli in teaching, but if a boy is blind, the right in general becomes wrong in particular. The general instinct of physical activity recommends constructive work, motor expression, and the actual manipulation of objects as means of training for almost all young children; but for the few who are relatively lacking in this instinct and possess in abundance the capacity for abstract thought and pure mental gymnastics, the more scientific and intellectual study of objects and ideas and symbols may be better. . . .

[**Habit and conduct.**] — The springs of conduct are the instincts given by nature and the ideas given by education. The actual direction which the stream of behavior takes is represented by the habits one acquires. "The good and efficient character implies the subjugation of those instinctive tendencies to action which injure oneself or others, the energetic action of desirable ones, the presence of worthy ideals, and the connection of these with appropriate acts, a multiplicity of useful habits, the power to see and react to the element of a situation which will issue in an act producing the best results, the power to react to barren abstractions such as *ought, right* and *true,* the power to delay decision until enough evidence is in to warrant one in deciding, the power to

refrain from delaying it too long, and the power to stand the strain of effort implied in choosing a relatively unattractive course of behavior.

[**Training of character.**] — Useful instincts must be given a chance to exercise themselves and become habits. Harmful instinctive responses must be inhibited through lack of stimulus, through the substitution of desirable ones, or through actual resultant discomfort, as best fits each special case. The mind must be supplied with noble ideas through the right examples at home, in school, in the world at large, and in books. These ideas must be made to issue in appropriate action or they may be worse than useless. The capacity to examine any situation and see what the essential fact in it which should decide action is, must be constantly exercised and guided. The habits of letting "It is right" or "It is best" or "It will be for the real welfare of the world" or the like be an absolutely final warrant for action must be firmly fixed. The will must be prevented alike from precipitate responses and from dawdling indecision. The power to banish from mind attractive but unworthy ideas, and to go on one's way regardless of the effort involved in so doing, must be gradually built up. Especially important is the actual formation of definite habits. If a man does what is useful and right he will soon gain proper ideas of social efficiency and of morals. If he learns to do the right thing in a thousand particular situations, he will, so far as he has the capacity, gain the power to see what act a new situation demands. If he is made to obey a thousand particular "This is right's" and "That is right's", he will, so far as he has the capacity, come to connect respect and obedience with the abstractly right and true. If he does what he has to do well and treats his fellow beings as he should in the thousands of situations of the ordinary course of life, he will gain the power to conquer attractive counterimpulses.[1]

[1] THORNDIKE, E. L. — *Elements of Psychology*, pp. 293–294. A. G. Seiler, (1907) 1922.

XXI. SPEECH DEVELOPMENT

Learning to speak and to understand the speech of others is so universal among human beings that most parents give no attention to the language habits of their children unless speech is delayed or unless very striking speech defects show themselves.

Many defects of speech are avoidable, others, when they do appear, need the help of a specialist for readjustment. An understanding of the stages through which the child's language development passes should be both interesting to the parent of young children, and helpful in many ways.

The child needs to hear the best voices, the best intonations and enunciations, as well as the best vocabulary that the parents and others in his immediate surroundings can furnish. It seems likely that careless use of language by adults handicaps many children in their later social and intellectual adjustments. The thoughtless indulgence in "baby talk" may be cute; but careful students tell us that such talk is always the invention of adults. The use of common words with special meanings confined to the family and private names for common things or processes are also means of serious interference with normal language development.

LINGUISTIC DEVELOPMENT OF CHILDREN*

CHARLES W. WADDLE

[Linguistic stages.] — Many psychologists have attempted to name and describe definite stages in the development of speech. While there are minor differences in details there is practical agreement upon the more important stages. All of the more or less elaborate classifications present at least the following stages which we adapt from many studies: (1) A reflex period of involuntary preliminary exercise of the speech mechanism seen in cries, gestures, and articulate babble which is in no true sense consciously expressive, still less communicative; (2) a period of developing understanding of articulate sounds, marked toward its close by imitative and playful babble of a spontaneous sort; (3) a period of development of facility in thought expression by means of words. It is not difficult to recognize well-marked subdivisions of each of these

* From *An Introduction to Child Psychology*, Chapter VII. By permission of, and by arrangement with, Houghton Mifflin Company, the authorized publishers. 1918.

stages. One of the most useful and suggestive statements of the speech stages is that of Pelsma[1] to whom we are indebted for the names and descriptions which are now to be given.

(1) **Reflex.** — A short stage in which undifferentiated cries, gestures, "coos," and the like are made spontaneously, without recognition of their expressive or communicative value. The actual differentiation of the primitive "ä" cry of the infant has by most observers been found to take place between the third and the fifth weeks.

(2) **Cry and gesture stage.** — With the advent of the infant's first true smile, which is usually noted sometime near the third month, his awareness of his environment, especially of the world of people, is clearly evidenced. This much-looked-for event has been thought to signalize a new attitude, and to mark the beginning of at least crudely purposeful use of the primitive means of expressing thought and emotion — cries, gestures, facial expression, and the like.

(3) **Babbling.** — When definite, purposeful reactions to his environing world begin, the part played by vocalization in such responses rapidly assumes an important place. The first step toward true speech is taken when vocal responses are made to the vocal stimulus of the mother's voice. Of first importance, therefore, in the preparation for true speech is the period of playful exercise of the speech mechanism, commonly known as the period of linguistic play or the babble period. From purely spontaneous babble the infant soon passes to imitative babble, learning rapidly meanwhile the communicative value of sounds and perfecting his control of his speech mechanism.

(4) **Imitation.** — Beginning in purely mechanical, imitative babble, and passing rapidly to conscious learning of spoken words, this stage is the keystone of the arch of the linguistic structure, one side of which is based on physical and mental inheritance, the other on social heredity.

(5) **Plateau.** — A transition period which many observers have found to be a feature of learning curves in general seems usually to be found also in the mastery of speech. The rate of progress is retarded, or may even decline, but a perfecting and settling of what has already been acquired seems to take place. Since this stage is as a rule coincident with the acquirement of creeping and walking it is reasonable to assume that the child's attention and energy is turned into these other channels to the temporary loss of progress in speech. These activities, however, so enrich experience and mental content as to be very significant as stimuli to later progress.

(6) **Expression.** — True speech has begun when, with a consciousness of the meaning and value of words, the child begins purposively to use them to express or to communicate his thoughts and feelings. When this point is reached all the rest of his immature years are devoted to the perfecting of this power. . . .

The age limits to be assigned to the various speech stages are not easily

[1] Pelsma, J. R. — "A Child's Vocabulary and its Development," *Pedagogical Seminary*, 17: 328–368, September, 1910.

determined because of individual differences and the fact that each as a rule merges into the succeeding stage gradually and almost imperceptibly. It is perhaps sufficient to say that the first stage begins as soon as the child is born; that the second appears in a few days or weeks at most; that the third is at its height from six to eight months usually; that the fourth begins during the third period and becomes a factor of increasing importance, really overlapping all succeeding stages; that the fifth is reached sometime between nine and eighteen months, varying with the time of walking, and that the sixth normally begins early in the second year and has reached a well-developed state by the beginning of the third year. . . .

Slang. — The tendency to "invention" has its undesirable phases. Whether it be the "baby talk" of infancy and early childhood, the "hog-Latin" or "pidgin-English" of the secret language period, the lover's lingo of later adolescence, or the use of slang which in some circles, as among sailors, criminals, and at certain ages among all classes, results in the mother tongue being almost superseded by what has been termed "slanguage," there is serious danger that the mastery of the mother tongue will be definitely retarded if not permanently affected. It has even been suggested that mental growth and the development of intelligence may be thus impaired. Conradi, Secrist, Melville, and others find the slang period, if such there is, to attain its high point at about the beginning of the onset of puberty. It is believed that the wonderfully rapid expansion of intellectual and emotional life at this time, which outruns the power of expression, creates the natural demand for new, striking, unusual, and more expressive terms than the conventional ones, and a craze for slang is the result. If this be true there should be no more favorable time for the use of every good teaching device to enrich, refine, and enlarge the child's vocabulary. Language teaching at this period should have this object as one of its chief aims. . . .

Growth of meaning. — The mastery of speech is by no means complete when a vocabulary of goodly proportions has been acquired. One of the most important phases in mastery of speech is the enrichment and perfecting of meaning or content of words. Hall, and later Barnes and Chambers, made a very important contribution to language teachers by revealing clearly that children, and, to only a lesser degree, all persons, use many words with incorrect, incomplete, partial, or almost total lack of content. . . .

It seems very certain that in view of such facts it is much more important to perfect and enrich the content of a child's vocabulary than merely to add new words to the number already known. Since words are the symbols of ideas, the way to such enrichment lies in providing the child with ample opportunity to experience richly, to think freely, and to use his speech capacity to the full in expression of his own best thoughts and feelings to sympathetic auditors. . . .

Summary. — 1. Speech is an innate capacity acquired chiefly by exercise of voice play, self-expression, and imitation.

2. Acquirement is quite as much a matter of enriched sensory-motor experience and mental growth as of learning words.

3. In early stages children naturally violate all the conventional usages of speech, and aim directly and forcefully at expression of ideas.
4. Material and linguistic environment are the chief stimuli for the acquisition of vocabulary and the mastery of the forms of speech. Both create an insistent demand for additions to vocabulary which should be patiently and carefully met. Either has more value than formal instruction.
5. Plenty of opportunity for well-directed practice of speech is a *sine qua non* of good linguistic training.
6. Wealth of linguistic expression is a most marked trait of early childhood and a vital need in mastery of speech.
7. Association with older persons develops speech more rapidly than that with other children.
8. "Baby talk" is detrimental to both linguistic and mental development.
9. Verb inflections, use of connectives and subordinating words, and the mastery of the complex sentence are the most difficult elements of speech. Abstract concepts of number, space, color, time, and the like are acquired relatively late, and are an outgrowth of experience.
10. The use of slang is natural. It is an evidence of poverty of vocabulary and is to be combated chiefly in a positive way by enrichment and perfecting of vocabulary through reading, actual experience, and practice of precision under direction.
11. The successful direction of linguistic development demands an intimate knowledge of the laws and tendencies of spontaneous speech.
12. Linguistic tests are among the best available means of determining intelligence. In this the kind rather than the size of vocabulary is most important; the kind of use made of vocabulary rather than its content. Tests along this line can and should be widely extended and used.
13. The development of speech is one of the richest fields for future study.

THE DEVELOPMENT OF LANGUAGE IN CHILDREN*

PETER SANDIFORD

Language an inherited capacity. — The power to use some form of language is innate in every human being. Even the deaf-mute has a language, for he communicates with his fellows by means of a sign or gesture language. This capacity for language is, however, not perfect at birth; it is one of slow development, depending as it does upon the maturing of the vocal organs and of the general intellectual powers, as well as upon the various environmental stimuli.

But we must not fall into the error of thinking that it is the ability to use a specific language, such as French, English, or German, which is inherited. We inherit a capacity for *language* not for *a language*, and the particular direction the development takes is dependent upon environment. An English child

* From *The Mental and Physical Life of School Children*, Chapter XIX. Longmans, Green and Co. (1913) 1924.

reared in a French speaking family from infancy will have French for its mother tongue, while English will be considered a "foreign" language. . . .

Value of language. — Language is *par excellence* the tool of thought. All ideal representation, and conceptual analysis and synthesis are based upon it. Language fixes the attention upon universals in contradistinction to particulars, for it is the universals which give meanings to words.

Moreover language aids memory, for the mere fact of naming is an invaluable help to retention.

Language is also the medium of social heredity. Oral language annihilates space, for it enables us to project our ideas outwards and to break down the barriers existing between mind and mind. Written language enables us to annihilate both space and time. Thus, to-day, we are able to enjoy the thoughts that passed through the minds of Plato and Aristotle more than two thousand years ago. In the early history of mankind transmission was imperfect and unreliable, but with the invention of writing, the accuracy of the records was immeasurably increased. Take away this social inheritance and civilisation is destroyed; nay, further, existence itself becomes impossible.

Function of language. — The function of language is usually declared to be the *expression of thoughts and feelings*. The inadequacy of such a definition has been pointed out by Thorndike, who has shown that language is also used to *arouse* thoughts, feelings, and movements. When we say, "Shut the door," we do not express our feelings or thoughts, or, at least, only imperfectly. Communication is not the primary object; we want to arouse or stimulate a certain action in others. When the physician says, "Open your mouth," we do not think, "Physician wants *me* to open *my* mouth"; we simply open it at once. . . .

[**Stages in language development.**] — The first responses of children are not to words as such, but to different gestures, intonations, grimaces, and pantomime. The truth of this is seen when the statement, "Ah! you are a naughty baby," is made with a smiling face and a calm voice to a baby. The baby's response is a chortling laugh. But tell the baby that he is a sweet little angel in a gruff voice and the result is a terrified "squall."

It is very probable that words, especially at first, are not heard at all, or only imperfectly. The process may be compared to the perception of a foreign language when it is first heard. The whole thing seems, in the words of James, to be just "one great booming, buzzing confusion," out of which the separate words emerge only after many experiences of them. And many observers maintain that in listening to a speech in the mother tongue, we do not hear the whole of the sounds made. We perceive vague "slurred" sounds and fill in the meanings from past experiences.

In the use of language the meaning is filled out with gestures and intonations. In some of the children's "sentence-words," the intonations and gestures are the sole keys to the meaning. Thus "Mama" may mean "Please, Mama take me up and carry me," or "Please Mama give me some more food," etc., according to the way in which it is pronounced. In Chinese the inflection gives the meaning; the same written form may have several different meanings. Pro-

nounced with a rising inflection the word has one meaning; pronounced with a falling inflection it takes on another.

Since language is wholly concerned with the conveyance of ideas from mind to mind, the unit of language must everywhere be the sentence. When a single word is used, it has the force of a sentence and many persons return to a similar stage when giving commands. "Hat" or "Hat, please," said to a waiter means, "Please reach me my hat." And the Chairman of the Company in Galsworthy's *Strife* is a classic illustration of few words carrying much meaning. In early life the interjectional or explosive element in language is strong, although the actual interjectional forms develop fairly late. The interjectional element in adolescent slang is much too forcible to be passed unnoticed by even the most casual of observers.

The adjectival function can be traced from the age of one and a half years onwards. Adjectives are usually attached to names of food which may be cold, hot, good, nasty, sweet, or nice. In some cases the adjective has no real meaning. A "nice dolly" may simply be a "dolly."

Somewhat later, the adverbial function develops. "Here" is the first to appear, but it is closely followed by "where." After asking a young boy if he had been to various places which I named, I got the unexpected reply, "I've been to lots of wheres," and this effectually stopped any further questioning.

The prepositional and conjunctional functions are almost exclusively expressed by gesture at first. O'Shea records the case of "My-go-snow," standing for " I want to go out in the snow."

The pronouns are sources of trouble to every child. The confusion arises because so many of them may refer to the same individual, *e.g.*, *I*, *he*, *him*, *his*, *you* and *your* may all refer to one boy. Hence there is a tendency to use the nominative form of a noun instead of the pronoun, *e.g.*, "Mama give John" instead of "Mama give me." The personal pronouns *I*, *my*, *mine*, and *me* are seldom used before the end of the second year, and the correct use of them is seldom found before middle school life.

Inflections are also difficult. The adult who did not use regular plurals such as "mouses," "gooses," "tooths," and "mans" at the beginnings of his language learning, does not exist. The verb inflections are also confusing. "Buyed," "runned," and "flied" are frequently heard, and one small girl was known habitually to use "dig," "dag," "dug" as the principal parts of the verb to dig. *Can* and *may*, *could* and *might*, *who* and *whom* are often wrongly used until comparatively late in life. The first inflected forms to appear are the comparative and superlative forms of adjectives.

The correct uses of agreement in speech are late in development. "I runs"; "He don't do right"; "The teacher with all her pupils were on the playground"; "Neither me nor you were there"; "It's me"; and "Me, Sir," are common errors of this type. In "It's me," the grammatical form seems opposed to the psychological feeling; the French form *c'est moi* or the German *Ich bin es* both seem more reasonable in this respect. As a general rule concrete words are learned and used before abstract; and words with a positive content before those with a

negative content. The learning chiefly takes place by the process of trial and error. The child "plays" with words and successful forms are rewarded through the satisfaction of being understood and by evoking responses. . . .

The pedagogy of reading. — . . . An eclectic method of teaching children to read, with an emphasis on the "look and say" method, is probably the best. Word drill should be kept out of books and nothing artificial such as diacritical marks should be introduced. One line sentences and short "snippity" stories are especially bad, since they give no opportunity for holding thought, as it were, in solution. The child must learn to hold bigger and bigger elements in the mind; hence a book with a long story is valuable even for the beginning stages.

Words are not difficult simply because of their length; the meanings which are attached to them are the stumbling-blocks in thought getting. Many short words like is, was, the, when, it, who, if, and, but, on, in, out, etc., are infinitely more difficult than many ten or twelve letter words. They gather meaning from their context, hence words, if possible, should never be given apart from context. Lastly, greater attention should be paid to the hygiene of reading; many Readers leave much to be desired with respect to legibility.

THE DEVELOPING SPEECH NEEDS*

Mary Gray Blanton and Smiley Blanton

Baby talk — . . . Baby talk in the first stages of the baby's life can certainly not be very harmful and might be really helpful if not continued beyond that period. By baby talk is not meant the usual distortions of English, but diminutions and abbreviations. Certainly a baby in the babble stage of speech will suffer no harm if the adults babble back to him. It is the prolonging of any stage, either in the field of speech or in the emotional life, after its legitimate period has passed, that is harmful to the child.

Adults are prone to forget that speech with the young child is not a fixed product. It is continually evolving from the mere use of the primitive alphabet, which Taine has called "the raw material of the language," into complete articulate speech. This evolution must not be hampered by the desire, either conscious or unconscious, of parents and friends to keep the child in the baby stage in which he is so sweet and pleasing. Fortunately, in most cases they are unable to do this whatever the wish, as the child hears conversations between adults, carried on in a more or less correct form, and he is stimulated by this condition.

Yet, while a child who is precocious will be slightly stimulated, the child who has a neurotic taint, poorly directed, may form an individual language, which he will retain as long as he is permitted to do so. The mother who has allowed this condition to occur should realize the serious harm she has done or permitted to be done to the child and force herself to refuse to answer any question or demand in which an attempt at normal speech is not made, and

* From *Speech Training for Children*, Chapter VI. Used by permission of The Century Co. 1919.

she should see that others surrounding him do the same. If this direction is taken early enough the speech may easily be made normal. If not, the child should be taken to a teacher trained to correct defects of speech or, if none is available, to one trained to give oral speech to the deaf.

[**Effect on adjustment.**] — Trettien[1] says of those children who have a residue of baby talk left in their speech, "Later, when the child goes to school and begins to notice that it is lacking in this respect, it becomes the object of mockery by other children, and this inheritance from the nursery may have an injurious effect on its speech and even on its character and its future life."

This is, if anything, an understatement of the condition that occasionally occurs. Marked cases of this sort have the appearance and behavior of the grossly retarded and are by the untrained often so considered.

The mental development is markedly hindered by such speech, because a large percentage of the learning of a child is acquired through speech. Added to this is the inability to join in games and do the ordinary rough and tumble things by which children undertake to educate themselves and each other.

That these conditions are mostly the outcome of selfish inconsideration on the part of the parent can usually be demonstrated. One interesting case, which we have studied carefully, was that of an American boy who had evolved an entire language of his own, understood only by his mother and sister, but who had been taught to speak a foreign language with perfect precision.

[**Importance of good models.**] — E. W. Scripture says that the children of reformed stutterers may even receive from the harsh voices of the parents what may become in their own speech the foundation of stuttering.[2]

Good speech in those around the child is of great value. There is little doubt that the speech of the child depends extensively not only on the good sense, but also on the speech, of the parents and early associates.

Stuttering. . . . —Stuttering should never be considered as a bad habit, or even as a disease entity, but rather as a symptom that may be the result of any one of several conditions. It is the most serious defect of speech and is always superimposed on the neurotic constitution or temperament.

Since stuttering may have its origin in any of several different conditions, the diagnosis of each case must be made a separate study and the immediate treatment conform to the findings. However, the general rules of mental and physical hygiene that apply to one may apply to all, by virtue of the fact that they aim at the reëducation of the temperamental defect, which remains virtually constant in its character. The whole mental fabric of the stutterer is askew, and only those methods of treatment are of permanent value that aim at the fundamental failing and unearth the trouble lying at its root. Then may be undertaken the reëducational work necessary to alleviating the symptom. . . .

[1] Trettien, A. W. — "Psychology of the Language Instinct of Children," *Pedagogical Seminary*, 11: 113–177, June, 1904.

[2] Scripture, E. W. — "Stuttering and Lisping." Reprinted from the *Medical Record*, March 21, 1908.

The beginning of stuttering is usually gradual, but very often the broken unrhythmical speech of the very young child is never outgrown and the condition remains undiagnosed until some conspicuous occasion, such as the first day at school or a platform recitation, calls attention to it. It is rarely noticed in young children although it is often present. The statement is therefore often made by the parents that the child began to stutter after some accident or illness or on some special occasion, and while this may in many instances be true, it is very much more likely that the coördinational speech activities of the child have been abnormal from the beginning.

The attitude of parents is usually either one of complete apathy — that the child will outgrow his defects or that it is a bad habit, which can be corrected by sufficient nagging — or it is one of overconcentration, in which case the child is made to worry by the continual expressed and unexpressed fears of the parent.

Usually, if the child is taken to the general practitioner for diagnosis, he is told that the stuttering is merely a bad habit, and that he has only to grow up in order to cure it. How this impression can have persisted in the face of the presence of many adult stutterers will ever remain a mystery. Perhaps it is caused, to a certain extent, by the hopelessness which must face a conscientious parent in the face of any serious emotional defect, for, while stuttering is by no means unarrestable, it is the result of a functional disease of the nervous system which requires constant consideration and, more than that, a reversal of the present attitude along the lines of hygiene and discipline.

[**Child's needs.**] — The correct attitude for the parent to have is that he will do what he can both in treatment and in adjusting the child's life, physically and emotionally, to the environment, and, having done this, accept the defect with the best possible grace. Most stutterers cannot fail at least to adjust themselves somewhat to conditions. If the conditions themselves are made right, they can at least be made infinitely happier and be taught that while they may not necessarily be able to cure the stuttering, they can at least place a different value on it. The training for stutterers must be given serious consideration.

The child who has not yet acquired this symptom is the person who will show the greatest results from training, but as soon as the stuttering has begun, the training for both the general coördinations and the speech coördinations must be very carefully conducted. . . .

No one can guarantee a cure of stuttering and be certain of obtaining it, although the simplest thing will often apparently give temporary relief. These simple things may vary very greatly. Sometimes a movement of the hand in rhythm, sometimes nodding the head or twisting the voice or visualizing the word will bring about some marked change in the stutterer's mental attitude. But these measures bring only temporary relief from the symptom and do not touch the underlying cause. . . .

[**Freedom and expression.**] — The child should never be submitted to conditions that are calculated to produce speech pressure and should never be put in a position where he cannot talk freely, if he desires to do so. This, of course, is

difficult under our present school arrangements, and some modification in training is necessary to meet existing conditions. But he can at least be given every opportunity to express himself outside of school hours.

It is one of the greatest complaints of stutterers that other people, with misplaced sympathy, are perpetually taking their sentences out of their mouths. They answer the questions that they themselves ask, and guide the conversation in such a way that the stutterer will not be permitted to talk. Most stutterers like to talk, even if they do stutter, and they do not like to be deprived of this possibility of expression. A general education on the part of the public to control restlessness when the stutterer begins to speak, would be a very great kindness.

The child who stutters should not be permitted to become a victim of introspection. Perhaps this, more than any other tendency, develops in the stutterer. It is, in the first place, characteristic of him, and as his natural contact with the world is likely to be so unsatisfactory he replaces his interest in real life with an interest in an imaginary life laid in books and day-dreams.

[**Social relations.**] — He should be aided to adjust himself to life with other children. If his tendencies are not in this direction, a great deal of attention should be paid by the parent to this point. Other children should be invited to share his work, as well as his play, and these should be children selected with a sympathetic view to his needs.

The question comes up of the likelihood of other children acquiring the stuttering from him. While this has apparently happened occasionally, the number of cases is so small as to make the chances almost negligible. It is quite sure that the stuttering will not be acquired from imitation unless there already exists some marked neuropathic taint or a retarded mental condition.

[**Regimen and protection.**] — The stutterer should be carefully guided with regard to possible slight attacks of excitement and depression. He should not be encouraged to be too boisterous and gay in temperament, if he seems to suffer afterwards a corresponding amount of depression. This form of emotional reaction is not always easy to diagnose in either a child or an adult unless it becomes quite marked, but after-effects will often determine whether the laughter and vivacity is normal or abnormal, or rather, healthy or unhealthy.

The stutterer must be zealously guarded from nagging, whether by the parent or the nurse or the teachers or by other children. If his general coördinations are faulty, which they uniformly are, if he slams doors and breaks china, as much latitude must be allowed him as possible, and he should be given more opportunity for developing his muscles in an atmosphere in which these accidents are not likely to occur. Nagging in these cases has never been known to benefit a child and certainly may do a great amount of harm.

[**Left-handedness.**] — The stutterer who is left-handed has a handicap of a very serious nature if the use of this preferential hand is interfered with in any way. The already faulty coördinational centers should not have the additional burden of an entire reëducation in the highly specialized fields of writing and

other accessory muscles. Ballard[1] gives the statistics from a very elaborate survey made by him on the school children of London, and his findings eliminate any question as to the effect of the change of the preferential side on speech.

[**Rhythm.**] — It is obvious that the rhythm of the stutterer's speech is almost lacking. Exercises, therefore, that tend to develop the general rhythm are of value. First among these would be swimming and dancing, both of which have an excellent effect on the development of rhythmical breathing and control of the diaphragm, and would thus tend to correct the abdominal and diaphragmatic cramps that are present in stuttering.

The singing of simple, very rhythmical tunes is also advised. This faculty should not be cultivated for use in front of an audience since, while there are instances in which stutterers are very excellent singers, it will usually be found on closer observation that the stutterer has neither the coördinational control nor the temperament for a successful musical career.

[1] Ballard, P. B. — "Sinistrality and Speech," *Journal of Experimental Pedagogy*, 1: 298–310, June, 1912.

XXII. SEX EDUCATION

That "sex" to-day presents problems in social as well as in individual life is obvious enough. There is fair agreement among informed adults as to the complete failure of our traditional attitude and our traditional policy.

From far-reaching biological and psychological studies we learn that what is distinctive of the species is often associated most intimately with the processes and organs of reproduction in what have been called the "secondary sexual characters." What makes the male manly and what makes the female womanly are also the factors that make men and women *human*, rather than merely vertebrate or primate. Moreover, what is distinctive about the male of the species or about the female of the species (in contrast with the opposite sex) emerges from fundamental organic facts, and not merely from the special ways in which we have come to treat boys or girls. Quite apart from any question of social or intellectual "equality" of the sexes, males differ from females in significant ways. Sex in life is thus related to the essentials of personality, to those higher qualities and activities that we consider of importance in the very *humanity* of people.

Long after it is generally acknowledged that sex education is both desirable and feasible, we shall have serious difficulty with our own feelings, for these have been in most cases so firmly set against free and wholesome acceptance of sex and candid consideration of its problems, that it is quite impossible for us to discuss the facts and the problems without some degree of embarrassment. It is therefore insufficient for the parent or teacher who is to help young people in this field merely to become acquainted with facts and principles; it is necessary for such a person to overcome his own inhibitions and discomforts and fears. This means much more than a study that will yield familiarity with the facts of sex and an understanding of their consequences. It involves a rather complete reëducation of feelings and values and responses.

The most effective methods toward this end have utilized some form of group discussion, in which the members gradually acquire a scientific vocabulary and finally succeed in taking part in the discussion without emotional disturbance or annoyance. By meeting periodi-

cally, perhaps at first to hear facts and issues presented, and gradually taking more and more active part in the discussion, one can build up both the conscious familiarity with the essential information, and an adjustment of feelings that will do away with the characteristic strain of most people who are confronted with this set of problems.

ANSWERING CHILDREN'S QUESTIONS*

Cécile Pilpel

[**All questions legitimate.**] — Parents rejoice when their children ask intelligent questions. Mother eagerly repeats to father the interesting questions his son has asked during the day, and father tells his friends at lunch time what a bright youngster Willie is. If he has asked some really good question about the engine of the automobile, father is delighted, but let Willie ask father where baby Susan came from, and the *joy* in the question and the *answer* will depend very much on father's own bringing up, on father's attitude toward the sex life. The same holds true of mother. The question where babies come from if put by a child of about the age of five does not imply that the child is interested in the creative act. The child wants to know where babies come from for the same reasons that he wants to know where all the other things come from, and he wants as clear and true an answer as it is possible for us to give him.

[**The parent's inhibitions.**] — "Oh," you will say, "after you have answered that, he will ask so many more questions." Let us hope that he will and let us try to tell him what *he* wants to know and not what *we* think he ought to know. Unfortunately, because of our bringing up, because of our experiences, and because of all the mean and sordid things we know about the sex life, we are not at ease when we answer such questions. We flush, we stammer, or become sentimental or untruthful. The intelligent child very quickly becomes aware that there is something not quite right about this particular question and because of this feeling curiosity is unduly aroused. You have by your way of meeting the question shown that there is more than you are willing to tell. Parents must try with all their power to free themselves from their acquired, hampering attitudes of thought in regard to the sex life, in order that they may finely and helpfully meet their children's legitimate and intelligent questions.

[**Child begins without prejudice.**] — The story of the growth of the baby in the mother's body is very much of a fairy tale to the little child. This is well illustrated by the eight-year-old who was found putting a piece of sugar on the window-sill in order to attract the stork, who she told her mother would then bring her a baby brother. Nurse had advised her to do that. "But," said the mother, "you know better than that. I have told you where babies come from." "Yes," said the little girl, "but I like the stork story better."

* From *Studies in Child Training*, Series I, No. 9. Child Study Association of America, Inc., 1925.

[**Importance of early impressions.**] — Parents are not the only people that the child meets and surely even if we could manage it so, we would not want it, for in order to develop fully, the child needs many contacts. What we do want, however, is to be certain that our children acquire from *us* whatever they will come to value later in regard to their own spiritual lives, and surely we want them to think and feel as we do regarding this very important phase of our life — the sex phase. It is important that all questions bearing on the sex life should take their coloring from people with a clean and fine attitude. It is important that this first question of where the baby comes from should be answered truthfully, even though it may seem a fairy story to the child. We want our children to have complete confidence in us and the truthful way of meeting questions of far reaching importance will keep this confidence unbroken. Very soon there will be many people more than willing to pour all their ignorance and filth into the eager, curious, and interested growing child. If you have met the first questions truthfully, your child will have gained a confidence in you which will not be easily broken down. The whole point is to get there *first* with truth, facts, right thinking, and fine attitudes. Your boy will then not be found amongst those standing at street corners, smirking at the sight of a passing pregnant woman, nor will your girl blush and look the other way as though she had seen something indecent. We need not be sentimental, just truthful. The marvel of life, provided we allow the child to become acquainted with it, will itself call out sufficient wonder and interest to develop the reverent attitude.

[**On the father's rôle.**] — As the boy and girl grow older in understanding and keener as regards interest, at about the ages of eight, nine, or ten, we may be certain that the question as to father's part in the creation of life will be put to us. Here, too, we must not fail our children. Good books on biology or physiology can serve as an aid in giving these growing children a clear scientific account of the various processes that make up the cycle of life. Give them all the physiological facts, but do not fail at the same time to point out the other and more important aspects of fatherhood: the share which a good father has in protecting and loving his children, his place as a true and helpful mate to the mother, and his contribution to good citizenship.

[**At what age?**] — You may say, "Surely this is too young an age to give so much information." Perhaps; but the person around the corner will not wait until he thinks your child is ready for all that knowledge. And again, what makes you think that this bright and intelligent child of yours, who at this age inquires into everything under the sun, will shut his mind and interest to that phase of life just because you might wish him to?

[**The child who does not ask.**] — Perhaps you will say, "He doesn't ask about these things." That is no evidence that he is not concerned. It may merely be proof that somehow you have failed him before, and you will be wise, if *you* wish to be the one to guide him, to take advantage of a suitable situation, mood, or interest, and help him to discuss with you questions which you can very safely accept as being in his mind just as they were in yours when you were at that age.

[**Later questions.**] — There are many other facts and standards in relation to the child's sex habits which the wise parent will want to discuss freely and helpfully with his or her growing boys and girls. At a later period too will come questions regarding prostitution and other antisocial manifestations and the wise parent will be ready to meet these questions understandingly, and, because he has given them earnest thought, helpfully, and always with the fine standards which he has acquired.

If we have been successful in establishing confidence in us from the time the child asks his very first question through to the age of eighteen and even later, we will have had time enough to give all the facts which the growing person must know about the sex life and also to inculcate such standards as we have found to be basic in the sanctions underlying our social order and those which are part of our very own spiritual development.

Meet the first questions with truth, knowledge, and understanding.

BIOLOGICAL INFORMATION FOR PARENTS*

Benjamin C. Gruenberg

Sex differences. — The venturesomeness of the male may be contrasted with the conservatism of the female. These and other contrasts are of course not to be considered in any absolute sense; and we must not infer from them too much by way of establishing standards of what boys and girls, men and women, ought or ought not to do. Yet they are suggestive of fundamental differences which are worth considering in our efforts to understand the place of sex in life. We should learn to recognize and to value these differentiated manifestations of fundamental human traits, (which begin to show themselves from the day of birth), and eventually to guide them into the most profitable modes of expression, just as we consider it important to guide the various impulses which supply the energy for all activities.

Since we must consider that all impulses are of potential service, regardless of how they first show themselves, and regardless of how easily they are turned into undesirable or even disastrous types of activity, so must we consider that *the traits which distinguish males and females have potential values*, instead of assuming that some traits are better than others, or that some are even undesirable. It is more profitable to take the children as we find them and see what can be done with them, than to set up a more or less arbitrary model of what we think children ought to be and attempt to coerce the developing organism into conformity with our standard.

Secondary sexual characters. — The secondary sexual characters, beginning with mere accessories of the gonads, such as ducts and various glands (for example, yolk glands and shell glands among birds), and leading up to structures and activities only remotely connected with the gonads (such as milk glands and

* From *Parents and Sex Education*, Chapter VII. The American Social Hygiene Association. 1923.

nest building), may be looked upon as by-products of the exuberance of the germ plasm. Where life is found in its lowest terms, among the simplest plants and animals, there is food getting, escape from enemies, direct reproduction. There is, so to say, no margin for display, no reserve for extras. Among the highest plants and animals, those that have developed adequate apparatus for insuring the essentials of material existence, the surplus is turned into elaborations of structures and processes related to reproduction. This does not imply, of course, that these plants and animals are in any sense conscious of a desire to display, to venture, to experiment. It is intended only to suggest that *the activity of living matter, protoplasm, will continue in proportion as there is an abundance of the necessities.* Overfeeding does indeed often interfere with reproduction; but starved organisms never produce either abundant offspring or brilliant secondary structures.

Foundation of higher characteristics. — Among human beings, also, abundant supples of emotional energy are necessary to produce the activities which are most suggestive of the secondary sexual processes found in other animals. Considered from this point of view, we may perhaps more easily find ways of utilizing these manifestations. The preening of birds is suggested by the display and coquetry of our adolescents; song in the bird, like bellowing in the elephant or the bull, suggests outbursts of strong feeling, just as it does in human beings. The dance has its homolog among insects, crabs, spiders, and many backboned animals. The increased sensitiveness to color, odor, taste, as well as to touch, with the advance of puberty, is paralleled by similar phenomena during the breeding period of many animals. Finally, these conditions fail altogether, both among human beings and among other animals, if the primary sex organs, that is, the gonads, are removed or injured early in life. That is to say, *the capacity to develop these secondary characters depends upon the presence of the germinal tissues in the body.* And among human beings these secondary characters are the foundation of all the art and music, poetry and dance, and other qualities that we consider the most distinctly human traits in our whole constitution.

Sex impulse neither good nor bad. — There is much in our past traditions that stands in the way of a ready acceptance of this view of the relation between the highest manifestations of humanity and the roots of our character in sexual organs and processes. Yet the very philosophy which has condemned sex to the dark corners of shame gives evidence of very keen insight or of a sound instinct; for it discredits equally dancing and music, painting and sculpture, humor and drama, adventure and research. The quest for beauty and light and laughter is denounced because, like sensual debauchery, it is a search for pleasure. But we can save ourselves a great deal of unnecessary worry if we recognize that we are dealing with a primitive force which, like fire or electricity, can either be turned to the highest service or be allowed to become a source of dire calamity. *It is not the force of the sexual impulse which is either good or bad, but the use to which we put it.*[1]

[1] Compare "Conflicts," p. 308.

THE MENACE OF IGNORANCE

Walter M. Gallichan

"Leave the direction to nature" is the recommendation of the unenlightened. We know that the boy or girl, carefully shielded in the home from all "impure influences," and not prepared with necessary knowledge, may learn corruption in half-an-hour from the speech or the example of a bad youthful companion, or a debased elder. This is a matter of everyday happening.

The mystery, the silence, the fear, and the bewildering personal fantasies associated with the instinct of love leave the great mass of men and woman exposed to psychic lesions. Profoundly deep prejudices, repugnances, and disgusts may become embedded in the mental texture in childhood, to result in later life in neurosis, vice, failure in marriage, or grave errors in living. The greater part of one's intellectual energy may be used up for a considerable period in an effort to expel the delusions foisted upon the mind in youth. A revelation of actuality, after a long dream of unreality, frequently brings a serious psychic crisis. The psychology of the sexual life abounds with instances. . . .

The overaccentuation of reserve towards sex matters in childhood and youth, which is part of the policy of "protecting the young," often fails disastrously. This is especially noticeable in women. A complete ignorance renders the mind intensely susceptible to shock; and it cannot be too frequently repeated that sexual affronts or shocks are often serious, and accountable for much married disharmony, unhappiness, and even tragedy. There are instances of ignorant brides mistaking their husbands' normal conjugal ardour for grossness or immorality. The sudden confronting with altogether novel experiences hitherto associated with sin or disgust may well alarm and repel the uninstructed virgin. It is in such revulsions in the early days of marriage that discord of the most serious character arises; and from one moment of recoil may follow years of secret unhappiness and the annihilation of affection and esteem.[1]

PSYCHOLOGICAL CONSIDERATIONS †

Benjamin C. Gruenberg

Sex in infancy.[2] — In the ordinary use of the word "sex" the infant would seem to be entirely free of desires or interests that are strictly sexual. Nevertheless it is found that the feelings and impulses which become clearly related to sex later in life have their beginnings in the infant. And the development and conditioning of these impulses determine very largely the character of the individual throughout life.

* From *A Textbook of Sex Education,* Part IV, Chapter I. Small, Maynard & Co. 1921.

[1] See "Danger of indifference," p. 171.

† From *Parents and Sex Education,* Chapter V, "On The Nature of the Child." The American Social Hygiene Association. 1923.

[2] Compare "Emotional Development of the Child," p. 179.

The sensual element of sex, that is, the capacity to derive pleasure from sensation, is manifested in the satisfactions and enjoyments which the child gets at the very first from every kind of contact. The whole skin is sensitive, and mere touching is pleasurable. Certain regions of the body, however, are particularly sensitive, and here contacts arouse a larger amount of pleasure. These *erogenous* areas or zones are the lips, the genitals, and the anus, that is, the two openings of the food-tube and the opening of the urethra, regions in which the skin and mucous membranes meet. The pleasure which the child feels when touched or handled, when tickled, when sucking the nipple or his thumb, when passing urine or feces, is in part unspecialized pleasure which comes from every sensation; and it is in part due to a relief from internal strain, as for example, the pressure in the bladder or rectum. Gradually, however, the child becomes aware of a special pleasure from these experiences, and he comes to seek this pleasure. He discovers, long before he has any clear consciousness, that he can get this pleasure by sucking his thumb or by handling the genitals. And unless he is carefully watched, he is very likely to apply his discovery and make use of it.

Self-sufficient stage. — Because the child is capable in this period of supplying himself with these pleasures, this period is sometimes called the *autoerotic* stage. While he is still very closely dependent upon others for food and cleanliness and protection, he has already become independent of others for certain pleasures of a kind that become later tied up with the sexual life. It is not to be supposed that the child who is sucking his thumb really entertains desires or satisfactions that are "sexual" in the narrow sense, or that the child who is tickling himself or handling his genitals has sex ideas. Nevertheless such activities are closely related to masturbatory practices and often establish long-enduring habits which interfere with the further development of the child's character in certain respects. Such practices should not cause alarm on the part of the parents; nor should the child be made aware of doing something reprehensible. They indicate the need for helping the child find greater satisfaction in a different use of his hands — for substitution, not repression.

Learning to give and take. — Early in life the child will manifest pleasures related to his dealings with other people, chiefly mother and father. The pleasure furnished by the mother is associated with the supplying of food or stilling hunger, and with the warmth and contacts of her handling and fondling him. Here is an outside object which brings satisfactions of desire and pleasureable sensations. Later the child finds pleasure not only in what is done to him, but also in the reactions he can draw from others, the effects he can produce. He can gurgle and make his mother smile; he can babble and make his father raise him up in the air. He can give as well as take. The satisfaction of producing effects and the satisfaction of receiving effects or impressions from others are two opposite modes of getting pleasure which in many cases go to the extreme of causing pain or inviting pain. . . . While it is desirable that the child should get the satisfaction which comes from being noticed and that which comes from his trying to impress others, it is not desirable that he should either

give or take "till it hurts"; but the developing ego would rather be hurt than ignored, and he would rather cause pain than have his presence or blandishments disregarded. . . . The balked or perverted impulse to impress may take on the aspects of cruelty and is called "sadism." The opposite tendency, showing itself in a yielding to the cruelty or imposition of others, is called "masochism."

Progressive love. — The child's affections are early tied up to the people, the objects, the situations that arouse pleasurable feelings. Under normal conditions the mother thus becomes the first "love object," since from her come the deepest and the most numerous satisfactions. This affection finds an outlet in the effort to impress the mother; and it finds satisfaction in receiving renewed attentions of various kinds. . . . During the growth of character and power there is a progressive transfer of affection from the mother to a long series of "love objects" consisting of various persons of both sexes, various ideas, activities, interests, and ideals.

Parental fixation. — Many mothers, with the best of intentions, contribute to an early fixation of their children's affections and corresponding interests, by having them sleep with them, by overfondling them, by giving them a disproportionate amount of personal attention, by manifesting extreme concern about every scratch or bruise, and so on. As a result of such overemphasis of the mother-love, the child may fail to find for himself suitable playmates, suitable play activities and interests, so that he misses all the educational and developmental benefits of contact with others, the ability to give and take on an equal footing, the independence and initiative which should mark a maturing boy or girl, the sympathy and coöperativeness with others, in short the ability to take his place and responsibilities in the complex social world in which he is to live. In many cases this means also the inability to find a mate and to adjust himself to the normal sexual relations of adult married life.

This danger of the mother-fixation is greatest for an only boy, or for a youngest boy in the family. There is a corresponding danger of a father-fixation for the little girl, since the father is more likely to give satisfying attention to the girl, than the mother is to the boy.

Child's need for affection. — There is, of course, the corresponding danger of ignoring or antagonizing the child's affections. Absence of sympathy and understanding often leads to repression. The child's impulses, finding no response, turn in upon themselves. The child is forced to find his pleasures without his parents' aid, invents imaginary love objects or spends himself on the cat or a favorite toy. These substitutes, however, are naturally incapable of making satisfactory responses to the child's advances, and he gets his satisfaction by elaborating an imaginary world of kind and lovely people; or he gets his compensation by avenging himself upon helpless animals, by destroying things, or by indulging himself in his phantasy. A child in this situation can seldom, if ever, learn to like his fellows; he is forced into seclusion or aloofness. His shy approach is a constant handicap and at least makes difficult his eventual adjustment to the opposite sex.

IMPORTANCE OF THE SEXUAL LIFE OF THE CHILD*

Albert Moll

[**Masturbation.**] — The earlier the sexual impulse awakens, the earlier also arises the danger of sexual practices, and more particularly of masturbation. Common sensations in the genital organs, the feelings associated therewith, the impulse to allay the unsatisfied libido — all these may lead the boy to handle and rub his penis. The girl is affected by similar stimuli. In these cases, the first act of masturbation does not depend upon the desire to enjoy a voluptuous sensation, but results from the impulse to allay vague feelings of uneasiness. Only subsequently, when the child has learned by experience that mechanical stimulation of the genital organs induces voluptuous sensations, or when he has been taught this fact by a seducer, does the desire to produce these sensations drive to masturbation. The danger, of course, increases in proportion as the child comes fully to understand that in this way it can produce agreeable sensations, all the more because the child is either unaware of the injurious consequences of the practice, or, if it has been informed of these consequences, the knowledge cannot weigh in the balance against the easily induced enjoyment. But, the dangers of masturbation have been greatly exaggerated. It has been usual to refer to this practice the occurrence of innumerable diseases, including mental disorders and locomotor ataxia. . . . There is hardly a single organ of the body the diseases of which have not been by many attributed to masturbation. In reality all this is false. . . . In the child, as in the adult, there is danger in the fact that the act is so easy that it is likely to be repeated very frequently, and thus to become habitual. In addition, the masturbator is apt to require stronger physical and mental stimuli, and this increase of the stimulus may become dangerous. A special danger of persistent masturbation is to be found in the possibility that impotence may result. The masturbator, being accustomed to stimulate his genital organs by manipulations, and by various methods increasing the intensity of stimulus, will often find subsequently that the normal stimuli, acting in part in the form of sensory processes in the genital organs, and in part in the form of the normal psychical influences proceeding from without, are no longer competent to induce the normal sexual reaction. . . . This affects chiefly members of the male sex, but in some instances the same is true also of women. . . .

We have to take into account the fact that when a youthful masturbator subsequently exhibits nervous manifestations, these often result from the anxiety he has experienced on being informed of the serious consequences of his practice. Not masturbation itself, but fear of the effects, is here responsible for the resulting injury to health. A certain sort of popular literature has an especially unfavorable influence in this respect. Moreover, in many cases, self-reproach on *moral* grounds, it may be in childhood, but more often later in life,

* From *The Sexual Life of the Child*, Chapter VII. The Macmillan Company (1912) 1919.

must in such persons be regarded as the source of the nervous and mental symptoms. The dread of having committed a deadly sin, or an extremely immoral act, explains a part of the results which are commonly referred directly to masturbation. The dangers of masturbation must not be underestimated, but exaggeration must be equally avoided.

[**Relation of sex to mental processes.**] — The intellectual side of development may be influenced by an early awakening of the sexual life, the child inclining, in this case, to occupy its mind with sexual thoughts, to the neglect of educational opportunities. There are cases in which the inability to concentrate the attention is attributed to adenoid growths, but in which the defect might, with at least as much reason, be referred to the play of sexual ideas. To the teacher the pupil's inattentiveness is often an insoluble riddle, merely because he ignores in the child the play of erotic imagination, and, in fact, ignores the child's inner life in general. And yet, in such cases, the child's failure to attend to the work of the class sometimes depends upon nothing more than preoccupation with thoughts about the beloved person. In other instances, the inattention is due not to sexual ideas, but to sexual acts (such as masturbation). . . . Whilst we recognize the dangers attendant on the development of sexuality in the child, we must not overlook the fact that this development may have its good sides. The presence of the loved one may, in fact, powerfully stimulate ambition and the desire to work. A little girl who has fallen in love with her schoolmistress or governess, will strive to please the latter by hard work and attention; and similarly, a boy who loves a boy or a girl classmate, very often attempts to make an impression on the feelings of the loved one by his performance at school. . . .

In the same way, a child's altruistic feelings may be stimulated by love. We see cases in which a child tries to help the beloved schoolmate in every possible difficulty or trouble. Such a love may also spur the lover on to excellence in other fields. The boy, while still quite young, seeks to make an impression on the girl by courage and steadfastness, just as he will seek to do this somewhat later, when he has attained early manhood. . . .

[**Perversions.**] — The existence of sexual perversions may sometimes be traced back to early childhood, although, in individual cases, the experiences of childhood may throw little light on the subsequent sexual life. Cases certainly occur in which the abnormal sexual tendencies are manifested early in childhood, and in which these abnormal tendencies profoundly affect the mental life. In such cases a child feels unhappy on account of its abnormal sexual relationships. The boy would rather have been a girl, the girl a boy. The choice of future occupation may also be affected by mental peculiarities closely associated with the sexual life. The homosexual ladies' tailor, the music-hall artiste who makes a specialty of feminine impersonations, the ladies' hairdresser, and others in like occupations, will often tell us that the choice of their trade or profession was made while they were still children. . . . Still other sexual perversions may influence the inclinations of the child and the occupations. A hair-fetichist, who had to stand trial on account of cutting off girls'

plaits of hair, had experienced peculiar sensations whenever he had handled hair for one or two years before his first offense. In other cases of fetichism the abnormal tendency went much further back. An underclothing fetichist began at the age of seven to be greatly interested in his sister's and in the maid-servant's underclothing, touching such articles of clothing as often as he could, and pressing up against them in a caressing way. The choice of reading is sometimes determined by perverse sensibilities, the sexual nature of which may not become apparent until a considerable period has elapsed. Persons with masochistic or sadistic tendencies, select in childhood stories about robbers and slaves, the use of fetters and the description of violence of all kinds playing a peculiar part in their imaginings. And it is well established that children sometimes deliberately incur corporal punishment in order to enjoy the masochistic sexual sensations. . . .

THE ESTABLISHED POINTS IN SOCIAL-HYGIENE EDUCATION, 1905–1924*

Maurice A. Bigelow

Point No. 4. Social-hygiene education or sex education is now understood to mean all educational measures which in any way may help young people prepare to meet the problems of life that have their center in the sex instinct and inevitably come in some form into the experience of every normal human being. These problems extend over a vast range of life's experiences from simple little matters of personal sex health to the exceedingly complicated physical and social and psychical problems that concern successful marriage and family relationships.

Point No. 5. There should be no sex courses. It is not desirable that any parts or courses of the curricula for schools and regular colleges should be known to the students and to the public as "sex" studies. . . .

Point No. 6. Sex education in schools should be presented through other subjects or courses. Since sex education is but a phase of health education and character education, most instruction and guidance intended for the building up of wholesome attitudes and habits and ideals regarding sex should be developed as integral parts of the general educational program.

Point No. 8. The biological and psychological divisions of social-hygiene education are teaching definitely that human sexual control or management must be on the basis of intelligent choice, because there is no basis for instinctive control, as in the higher animals. This means the greatest task of human life, for there must be voluntary control of driving, instinctive impulses or desires which are intensified by massed memory associations and by numerous environmental stimuli or temptations. These are exclusively human problems. . . .

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Point No. 9. Social-hygiene education aims to provide a basis for the necessary intelligent choice by educationally developing many controls of conduct, some of which are: respect for public opinion; the feeling of modesty; knowledge of legal, social, or medical consequences; conscience or feeling of obligation; emulation of attractive personal examples; fine and appropriate reticence instead of the older false modesty and shame or the new vulgar frankness; high respect for womanhood and manhood; habits of chastity; knowledge of the general relations of sex and life; physical and mental recreation, not as sublimation but as substitution for sex interests; the probable rewards of self-control in youth; literature which portrays romantic love at its highest level. All these and many more are recognized as of value in control of conduct.

Point No. 13. The accumulated evidence indicates that parents cannot know their young children are safely protected against vulgar first lessons concerning sex. Most children are almost certain to get more or less sexual information not later than the early adolescent years, and usually from unreliable and vulgar sources. Even morals may become corrupted and health irreparably injured several years before puberty. The only sure pathway to health, wholesome attitude, and good conduct is in instructing children gradually as the problems of sex come to the attention of the individual child.

Point No. 14. Sex education is a combination of phases of character education and health education, and hence cannot be accomplished at any one time. It must be a progressive process of hygienic care, guidance, instruction, and example. This places upon the home the chief responsibility for direct sex education of children during the preadolescent years. Therefore, parents and others dealing with children should be helped by printed matter, lectures, and conferences to prepare themselves for guiding and instructing their young children in respect to sex.

XXIII. ADOLESCENCE

In the period between puberty and adulthood the pecularities of the individual emerge rapidly so that many boys and girls who were hitherto merely children become distinct personalities who can no longer be treated as children, or ignored as personalities. For parents and teachers who are not aware of the universality of such changes difficulties arise, since we are disposed to blame the individual for manifestations and conduct that stand out from the ordinary, that take us by surprise, or that baffle us.

Many studies have established a close connection between the mental and emotional changes of this period and the physical changes, such as rapid growth, the appearance of hair, the alteration in the voice, the enlargement of the genitals and the breasts, and so on. Moreover, these studies point to the need for especial care and protection as to the health. Attention to proper diet, elimination, rest and sleep, exercise and recreation, etc., are necessary even if satisfactory health habits had already been established in earlier years. There are new strains, new stimulations to exertion, new temptations to depart from the established routine.

Fluctuations in mood, which earlier writers emphasized as characteristic of the period, are themselves very variable. That is to say, they may be very violent in some cases and hardly discoverable in others. Since the many desires that normally develop are paired with their opposites, the phenomenon described by G. Stanley Hall and by others may mean only that during adolescence all desires, aspirations, and longings become both more intense and more conscious, at the same time that the individual is more than ever aware of restraints and obstacles to free indulgence of every impulse. It is at any rate a period for the rapid consideration or appraisal of all values, and moods and attitudes have to be tried out or sampled.

The growth of self consciousness, with the conflicting alternatives of shyness and self assertiveness, is also a factor in the play of moods. There is need for experience in self assertiveness that teaches unmistakably the meaning of *others* in daily life. Many adolescents suffer from the conflicts of what we sometimes call egoism and altruism,

because they had failed to learn in the earlier years the normal give and take of social living.[1] There should be now, in addition to the normal discovery of the self as a thinking animal, as an aspiring personality, as a self-directing individual, a growing identification of the self with the group. There is needed not only a technique for self-expression, or self-assertion, in relation to others, but also a growing devotion to the larger requirements and purposes of the community.

It is during the high school and college years, or rather during the age period corresponding to these years, that social attitudes and values are largely fixed. It is for these reasons that work and group recreational activities should be encouraged and definitely provided for by parents and teachers at this time, for it is through such activities quite as much as through any formal instruction or preachment that the attitudes are formed. As we work and play alone or together with others, as we direct our efforts to private ends or to common ends, as we derive our major satisfactions from exploit or from service, we become habituated to conduct that separates us from or ties us to our community.

Closely related to the appearance of self consciousness is the development of sex feelings, and sex consciousness. In the most retarded and obtuse cases it is impossible for the individual to overlook the onset of menstruation, or the first seminal emission. Such an experience may well come as a shock to the unprepared girl or boy. It is questionable, however, whether the situation is adequately met by "a brief, plain explanation of sex functions," as recommended by Starr (page 251). If guidance and information have come as the normal incidents of growth and development from infancy,[2] these bits of information and the necessary precautions will also have had their place. The important additions to the sex education program during the adolescent periods are along somewhat different lines. The problems are becoming personal and social, they concern more than curiosity about objects in nature. Here then would come the frank discussion of problems regarding sex in the life of the individual, as suggested by literature, by the daily life to be observed in the community, and by the reflections found in pictures, the drama, and the newspapers. Moreover, the social and moral meanings of marriage, the home, monogamy, promiscuity, prostitution, and related problems are now of genuine concern.

[1] See "Exclusion from the gang." p. 139.
[2] See Chapter XXII, Sex Education.

The prolongation of systematic schooling and of economic dependence past the time of virtual physiological maturity places upon parents and educators the responsibility of guiding the young people into effective control of their impulses, and into effective direction of their energies along profitable channels of activity.

There has nowhere been developed a complete technique for the systematic sublimation of the sex impulses, except for a selected few in connection with religious consecration. In the case of intelligent boys and girls of marked talent, the cultivation of intellectual interests, professional or artistic ambitions, or ideals of social service often serve effectively, even where those in charge are not very clear as to what they are doing; yet in many cases secondary results of an undesirable kind show themselves, as in frigidity among certain types of college women.

Young men and women need to be treated with a growing regard for their personalities as they mature; they need moreover the sympathetic guidance of older men and women in facing the difficulties that beset them, quite as much as they need anything else that higher education can give them.

PHYSICAL GROWTH AND DEVELOPMENT*

LOUIS STARR

[Growth uneven.] [1] — In growth there are periods of acceleration alternating with intervals of comparative rest, and in these latter it is probable that qualitative improvements of structure are taking place through the same life force that produces gross increase in size.

In both sexes gain in height antedates gain in weight. Weight often increases long after full height has been attained, and during the years when both are augmenting their increments are not synchronous, the greatest of one frequently coinciding with the least of the other.

Gain in height alone is but one evidence of normal growth, and this must be associated with a proportionate increase in weight to show perfectly healthy vigor. Great tallness without corresponding weight and symmetrical development is abnormal and is usually attended by a lack of reserve force or ability to resist strain or disease. The same is true, in a less degree, where weight markedly exceeds height. Between both of these features of growth there is an approximate standard of proportion for different years, and the nearer the individual approaches the average height and weight of his special age the closer will be his conformation to a model of complete symmetry and health.

* From *The Adolescent Period,* Chapters I, II, III, V. P. Blakiston's Sons and Co. 1915.

[1] Compare "Physical Development," p. 177.

[**Sex differences in growth.**] — A fairly accurate standard proportion of height and weight in the two sexes from the age of eight to eighteen years is shown in the following table:

Age in years	Males		Females	
	Height in feet and inches	Weight in pounds	Height in feet and inches	Weight in pounds
8	3.10	49.5	3.9½	47.7
10	4.2	59.6	4.1½	57.4
11	4.3¾	65.4	4.3½	62.9
12	4.5½	70.7	4.5⅔	69.5
13	4.7½	76.9	4.8	78.7
14	4.9½	84.8	4.10½	88.7
15	5	95.2	5 ⅓	98.3
16	5.2¾	107.4	5.1½	106.7
18	5.6½	123	5.2½	115.4

[**Growth of parts.**] — . . . The growth of the various parts and organs of the body is not uniform. The muscles, for instance, grow more than the lungs or stomach, and many rudimentary structures atrophy or disappear as age advances, so that at birth and at maturity the component parts of the body are very different in relative size. Most organs and parts of the organism grow intermittently; they are, too, subject to variations in order and degree of development in different individuals notwithstanding a similarity in height and weight, and they reach their greatest size at different ages; for example, the brain almost ceases to grow at puberty, when the reproductive organs, the pelvis, and the muscles generally are growing at the most rapid rate.

[**Muscles.**] — As children advance in age their muscles increase markedly in length and thickness and become more firmly attached to the bones. In girls, with the exception of the uterine walls, the muscular growth is less than in boys, but decided differentiation in the sexes in this respect does not begin until the age of thirteen. Muscle growth may be unsymmetrical, causing unusual postures of the body or limbs and changing facial expression; or the bones may be twisted out of shape by arrest of some and overdevelopment of other muscles, and a disproportion in bone and muscle growth is at the root of the clumsiness so often exhibited by adolescent boys. . . .

The small muscles are most readily overstrained from the fourth to the eighth year; after this to the age of twelve there is less danger, but more again as puberty is established, particularly if fundamental activities be neglected. This being the period of very rapid power growth in the large muscles of the legs, back, and arms and in those involved in circulation and respiration, there is less fatigue-resisting force left for the accessory muscles. Therefore, at this time, there should be less confinement and study or delicate handwork and more outdoor life and play, with its relaxation and exercise. When it is desired to train the accessory muscles for complex and delicate acts, as playing some musical instrument, or any intricate handwork, the task should be begun

at the age of eight or nine, taking advantage of the interval when the functions of these muscles are not dominated by the great strength increment taking place in the fundamental muscles at puberty. . . .

The efficiency of the muscles depends upon their strength, their rapidity of response to will-commands, their diversity of motion, and the completeness with which these factors can be voluntarily coördinated. . . .

[**The bones.**] — Like other organic tissues, the bones are composed of cells and supplied with blood vessels and nerves, and increase greatly in size from birth to maturity, their most rapid growth taking place just before and after puberty. They are subject to developmental irregularities; thus ossification may be retarded or arrested, or calcareous hardening of cartilage may be premature or excessive, making them too dense and large and causing them to encroach upon adjacent structures. Again there may be faults in chemical composition. Sometimes, an overproportion of lime salts resulting in brittleness with great liability to fracture; at others, a deficiency of these salts making the bones too soft and readily bent and twisted, the condition encountered in rickets.[1] . . .

[**The heart.**] — The *heart* materially increases in size from birth to the fourteenth year, and with the advent of puberty must respond, by increased functional activity, to the widening area of circulation that takes place at this time. This demand on the cardiac muscle is attended by enlargement which may be great enough to appear abnormal, but this is only temporary, and provided general health be good and there be no excessive or continuous strain, is soon compensated and the size of the organ again becomes proportionate to that of the frame.

Before puberty the blood vessel area is large compared with the size of the heart; after, the reverse is the case. This latter condition is attended by a more forcible cardiac impulse, by higher blood pressure, and often by transient palpitation, alteration in the rhythm of the ventricular contractions, and other disturbances that, while entirely independent of structural disease, give rise to consciousness of the presence of the heart, a common and uncomfortable symptom at this age. Now, also, the pulse rate decreases, a change which depends more upon height growth than age, the beats being uniformly slower in those of tall than of short stature.

[**The lungs.**] — The *lungs* and *chest* increase in size with the rest of the body and take part in the rapid growth of the pubescent years. In boys the rapidity of yearly increase in the volume of air that can be expelled after a full inspiration — the *vital capacity* — measured by spirometer, augments at the age of fourteen years, decreases a little at fifteen, and is greatest at sixteen, though there is a constant and decided gain throughout these years, and the rate of increase is much greater in those who have the advantage of proper physical culture. The development of vital capacity is an important element

[1] Recent studies would indicate that rickets may be due to an *imbalance* between the calcium and phosphorus supplies rather than to a deficiency of the former; and that it may be prevented or cured by control of the diet. *Ed.*

of strength and attends gain in weight more closely than in height. At puberty the chest capacity is lessened by the normally rapid cardiac growth, though this reduction is more than compensated by the coincident expansion of the thoracic space and the increased area of the pulmonary air cells. The girth of the chest, measured on the nipple line, enlarges most markedly from the fourteenth to the seventeenth years. Its increase is less rapid than that of vital capacity, as it is little dependent upon tissue elasticity. . . .

[**The brain.**] — The *brain* grows most during the first six years of life, though there is a slight and steady increase until the age of fourteen when it reaches about its full size. . . .

[**The kidneys.**] — The *kidneys* may be referred to here because their function is connected with certain phobias that are common in early adolescence. These glands grow from birth well into adult life, and their secretion is the medium of removal from the body of urea, which is the principal nitrogenous product of retrograde tissue change. Sometimes about the age of fourteen there is transient albuminuria, sufficiently marked to suggest renal disease, and another occasional occurrence is a temporary appearance of sugar in the urine. . . .

[**Disharmony in development.**] — Many of the minor troubles of adolescents are due to disproportionate development. For instance, if height increases very rapidly and abnormally, "growing pains" are experienced because the muscles fail to keep pace with the bones. The stretching also causes vascular disturbances such as varicose veins in the legs — a quite common condition — and the bones themselves may be curved and twisted. Acromegalia — abnormal development of the bones of the face and extremities, with disease of the thyroid gland — is an exaggerated example of lack of proportion in growth. This disproportion may be due, in part, to some tissues appropriating more than their share of plastic material from the blood, a condition that leads to their more rapid growth and produces deformities, as, for example, lateral asymmetry. . . . [See "The endocrine glands," p. 252.]

[**The school and home regimen.**] — Considerable blame for the ailments of the young rests upon school authorities, who are too frequently ignorant or careless of health and are so bent on pushing instruction that they force into invalidism or stupidity very many of their pupils, only those who are with difficulty made to work safely weathering these years of trial. The proper plan is to reduce radically school work at this age. The girl or boy should get sufficient sleep each night and have a good appetite and digestion or be kept away from school. Apart from excessive work, the mere fact of attendance in the study room interferes with nutrition, slows growth, favors neurasthenia and tends to arrest the development of the higher powers which should unfold later. Children who study over four or, at most, five hours a day suffer more illness than those who understudy, and this is more noticeable the younger the child as there is less resisting power.

Sleep, by resting and rebuilding worn-out nerve cells and by affording an opportunity for the removal of waste material, is a potent health preserver.

Children of all ages, while attending school and especially during puberty, seldom get enough sleep, and hours merely passed in bed must never be a measure of the amount of sleep obtained. . . .

Sleeplessness often occurs as a morbid condition and, as such, reaches its highest point at the age of twelve in boys and thirteen in girls and can be controlled by reducing school work and allowing more outdoor freedom and play. . . .

Excluding the acute diseases, interesting deductions have been made in connection with chronic conditions such as anæmia, headache, various eye troubles, nasal hemorrhage, loss of appetite, nervousness, curvature of the spine and so on. The frequent occurrence of these affections and their rapid increase in early adolescence is very noticeable. . . .

[**Sex consciousness.**] — Certain risks accompany the dawn of sex consciousness, and the passage from childhood to maturity, in either sex, should be carefully supervised. The physical changes of this transition period are marked, and often surprise and shock the uninformed. This is particularly the case in girls who, from false modesty as to sexual matters on their mother's part, have received no instruction about the menstrual function. Those uninitiated are in danger, too, of the occurrence of mysterious and vague ideas and the formation of habits of self-inspection, masturbation, and other abnormal practices. On this account all children approaching puberty should be given a brief, plain explanation of sex functions. . . .

[**Menstruation.**] — The first menstruation frequently comes to the uninstructed girl as a shock. In her ignorance she is surprised and frightened by the hemorrhage, thinks that she has been injured in some way, and may try to staunch the bleeding by cold applications. After it, her whole disposition changes. She gives up childish plays; becomes more modest and quiet; inclines to solitude and meditation; grows more imaginative; has alternating high and low spirits; pays greater attention to dress and personal appearance; begins to be attracted by men, but is shy and reserved in their presence; is more sensitive, and is concerned and thoughtful about the important systemic changes that are taking place. Often, too, there are ill-defined symptoms hinting at mental or physical diseases, though these usually disappear, and a healthy balance is established when exercise and rest are duly proportioned to meet the associated general weakness. . . .

THE AWAKENING OF THE REPRODUCTIVE FUNCTION*

Maurice A. Bigelow

[**Maturing of sex.**] — Coincident with the awakening of the primary sexual organs (the ovaries and spermaries) and the rapid preparation for reproduc-

* From *Adolescence*, Chapter III, "Sexual Instincts and Reproductive Function in Adolescence"; Chapter IV, "Physical Changes in Adolescence"; Chapter V, "Special Hygiene of Adolescence". Funk and Wagnalls Co. 1924.

tion, the sexual or mating instinct becomes active and, in one form or another, tends to exert an enormous influence on the physical and mental life of youth during the pubertal period and thereafter. . . . There may be some evidence of sexual interest in some children long before puberty, even in infancy, but this is largely, and perhaps solely, the result of curiosity, self-stimulation (masturbation), sexual play, and unhygienic conditions. There is no good biological reason for regarding sexual interests of some children before adolescence as a real awakening of the sexual instinct, which in the form of new emotions and new physiological conditions begins its irresistible influence at the dawn of puberty. Children are not sexless human beings; but in numerous cases there is no sign that sexuality tends to awaken before puberty. . . .[1]

The endocrine glands. — Among the glands which are concerned with the formation of internal secretions (or incretions) seven are now fairly well known to physiologists, namely, the thyroid and the parathyroid glands in the neck, the suprarenals near the kidneys, the pineal and the pituitary glands in the brain, certain regions in the pancreas, and the reproductive glands (ovaries and spermaries).

The secretions of these contain certain substances (hormones) that are distributed through the body by the blood and lymph and produce marked effects in the growth and activities of various organs. Some of these substances are popularly known. The therapeutic use of thyroid extract, of pituitary extract, and of adrenaline or suprarenal extract has been familiar for many years; and during the year 1923 the discovery of insulin, an extract of the pancreas for the treatment of diabetes, was heralded by the newspapers.

It is now clear to physiologists that some of the hormones from the endocrine glands exert a profound influence in the changes of adolescence. First of all should be mentioned the well known relation of the thyroid extract to the fundamental nutritional processes (metabolism) of the body, and the enormous importance of this gland in its direct and indirect influence on growth and other changes of the adolescent period.

Closely associated with the thyroid's influence on growth is that of the pituitary gland of the brain. Its excessive activity in early life is the cause of great height (gigantism); and, strange to say, after growth is complete excessive pituitary secretion results in enlarged skull and bones of the hands and feet (acromegaly).

If there is undersecretion of the pituitary gland in childhood, the growth of the skeleton is retarded and the individual is a dwarf in stature, usually with small hands and feet and a childlike face. Often fat is massed in a peculiar way over the lower half of the trunk and the upper parts of the arms and legs. The external reproductive organs of these individuals tend to remain in the childhood stage, and pubescence is absent or scanty. In extreme cases, young men with this abnormal condition of the pituitary gland have unusual voices of high pitch and undeveloped sexual instincts, while in young women there is reduced or suppressed menstruation.

[1] See "Puberty — about 15 years," p. 181.

The suprarenal hormones also affect sexual development and adolescence directly. Hermaphroditism, or the existence of organs of both sexes in one individual, occurs frequently in many animals (for example, many snails and the earthworms). Pseudohermaphroditism, or false hermaphroditism, in human life is merely abnormal development of the external genitals probably due to excessive suprarenal secretion in fetal or prenatal life. These abnormal individuals have more or less imperfect organs of both sexes.

Sometimes, fortunately rarely, overactivity of the suprarenals begins in early childhood, and premature sexual development is the result, girls of three or four menstruating regularly, and boys of six or seven having the sexual characteristics of men.

Finally, among the glands that profoundly influence adolescence there is the popularly known relation between the reproductive glands and sexual characteristics. It is well known that when deprived of these glands in early life, the individual develops normally so far as growth and all nonsexual functions are concerned, but the usual manifestations of sexual instincts and secondary sexual characteristics, such as voice, pubescence, and bodily form, do not develop.

The foregoing is an outline of some of the best known relations of endocrine secretions to adolescent development. No doubt the reactions are complicated by various interactions of the endocrine glands. As stated before, marked changes in certain glands may interfere with the course of adolescence, but our present knowledge leads us to think of the normal life of the adolescent period as the combined result of the coördinated and well-balanced activity of all the endocrine glands, and in particular, the thyroid, the pituitary, the suprarenals, the ovaries, and the spermaries. . . .

Hygiene of puberty of boys. — There is in adolescent boys no such sudden and alarming change as that of the first appearance of menstruation in girls. Nevertheless, there are two normal processes that are likely to be disturbing to many adolescent boys. The existence of these as part of the life of the normal boy of 14 has usually been forgotten by fathers, is unknown to most mothers, and has been deliberately avoided by most writers of books for parents and other general readers.

The first of these is the frequent and automatic or involuntary change in the blood circulation in the genital organs, especially during sleep, resulting in the phenomenon known to physicians as "erection." This may occur in preadolescence, the result of unhygienic conditions or self-stimulation. The testimony of many men is, as far as they can remember, that intensely disturbing desires accompanying the involuntary process make it a serious problem in puberty. No doubt this is the beginning of the young man's great battle for self-control, and this automatic or involuntary process is the physiological basis for the difference in the two sexes in the matter of so-called sexual temptation. The problem is even greater than that caused by the involuntary excitement, for there may be added the influence of memory associations, which may tempt the individual to voluntary repetition of the conditions which without memory would occur only involuntarily, as in all animals.

Concerning the hygienic management of this great problem, prominent physicians who have given special study to it have advised an abundance of hard work, both physical and mental, plenty of strenuous play, avoidance of stimulating situations, regular sleep in cool bedrooms with light bed covers, sleep on either side, but not on the back, cold bathing, and good hygienic living. . . .

[**Emissions.**] — The second process that is disturbing and even worries many pubescent boys is that of nocturnal seminal emissions, either during profound sleep or, more often, when the individual is suddenly awakened by great excitement of the automatically congested sexual organs. These experiences are likely to occur occasionally in the first adolescent years of young fellows who never cause relief of the storage reservoirs by masturbation or natural intercourse. Such relief of tension is especially likely to happen in the case of self-controlled young men who are frequently stimulated by the social dances of to-day, or by the ancient game with the modern name "petting," or by lascivious literature, stories, pictures, and theatrical shows.

The general testimony of reliable young men is that a sense of relief and buoyancy follows the day after nocturnal emission. This result might be expected because it is really the concluding stage of an orgasm, such as is the culmination of natural intercourse. There is, then, no reason for supposing that this phenomenon is harmful, and every boy on the verge of puberty should be so informed by his father or by a reliable man teacher. Failure to give such information has turned many a young fellow over to quack doctors who pretend to diagnose dangerous diseases which require very expensive treatment. The wartime publicity on this topic must have reduced the income of the charlatans who prey on young men, but already we have almost forgotten that new groups of boys who are entering puberty need helpful information concerning this problem. . . .

[**Sex differences and similarities.**] — Statements are often made to the effect that puberty is commonly completed in a few months in girls, but that it is a much longer process in boys. The author knows of no facts on which to base such a comparison. The truth is that we have no way of determining when a boy enters puberty. External signs of local growth and pubescence are only of approximate value in estimating the stage of the boy's development.

Several authors in a search for moral preachments have tried to show that seminal emission of boys corresponds to the menstrual periodicity of girls. A trained physiologist will surely find difficulty in imagining any sound basis for such a comparison. In the first place, nothing in the male physiology corresponds to menstruation, which is essentially the shedding of a uterine lining that did not receive a fertilized ovum for which it was intended. In the second place, there is no comparison between boys and girls, because there are few cases of periodicity of emissions in boys, and in many of these regularity has been established accidentally in much the same manner in which many people become regular in other functional habits.[1]

[1] See also "Differentiation of instruction and study," p. 172.

HYGIENE OF MENSTRUATION*

WINIFRED RICHMOND

Girls vary greatly in the length of the time it takes for the function to become stabilized. In some it is regular and its characteristics much the same from the beginning; in others it may be subject to irregularities for several years. Months may elapse between periods, or the first menstruation may appear and the second be delayed for a year or two or even longer.

Much has been written and is popularly believed about the great effect of the function upon the feminine organism. Women have been said to live their lives in cycles, their mental and muscular efficiency and their moral perceptions depending upon their proximity to the menstrual period. It has only recently been disputed that temperature, pulse rate, and blood pressure were affected during menstruation; the most carefully controlled studies have failed to show this to be a fact. Neither is there any loss of mental or motor efficiency in normal women, nor any regularly recurring periods of maximum efficiency within each month. It is usually asserted in institutions for mental diseases that insane and epileptic patients are more disturbed during their periods. This rests, however, upon observation only; the writer knows of no carefully controlled studies upon the subject. . . .

The chief thing to be kept in mind is the great variation among girls in regard to this function, and this applies to its hygiene as well. Certainly all girls should bathe during their periods, at least as frequently as usual, and a local bath with a change of napkins morning and night is no more than ordinary cleanliness. Some girls continue their cold tub or shower, sea bathing, or even swimming, with no noticeable effects; others are more comfortable after a sponge bath with warm water. As regards exercise, the strongly built girl finds that her period makes little difference; she can dance, do gymnasium work, play games, or run a machine as well as at other times. But her sister, with long limbs and short body and a general tendency to *visceroptosis* or sagging of the abdominal organs, is apt to suffer if she is compelled to stand for any length of time or engage in vigorous exercise. Each girl must find out for herself what is best suited to her. There is no need for a normal, healthy girl to suffer much pain or discomfort during her menstrual period. If she is influenced by the traditional attitude and regards herself as "sick" or "unwell," she is very apt to be so. It is only too possible to exaggerate slight symptoms into actual severity by fixing attention upon them. Let the girl order her life as usual, keep herself clean and comfortable, correct any tendency to constipation, and pay no more attention to the matter. More or less discomfort at some time during the period, some headache, a feeling of lassitude, slight depression, or irritability is very common and is no cause for alarm. And even these symptoms are apt to disappear when one ceases to expect them.

* From *The Adolescent Girl*, Chapter II, "Puberty: What it is and What it Means". The Macmillan Company. 1925.

SELF-CONSCIOUSNESS DURING PUBERTY*

EDWIN A. KIRKPATRICK

[**Relation to physical development.**] — The pubertal period is preëminently the period when self-consciousness develops. It may be prominent at other times, but almost surely becomes so during this period, and may then become a fixed characteristic of the individual. The fact that the bodily self is rapidly changing and thus modifying the background of consciousness as well as calling attention to various parts of the body tends to draw attention to self. The instinctive impulses are also changing, so that the young person, without intending it, finds himself acting and feeling in novel ways; and this also tends to draw attention to himself. Social sensitiveness is also increased at this time, so that what other persons do, say, or think with reference to one's self produces much greater effects. . . .

Now, instead of being concerned chiefly with what he may do or get, his consciousness is turned inward toward his own mental states, and the youth thinks more of what he is and may become. He therefore often finds self more interesting than anything else. The very fact of having ideals calls attention to characteristics of the self that need to be changed, and this also fosters self-consciousness and sometimes produces hesitation and constraint. . . .

[**Relation to sex development.**] — The development of extreme self-consciousness is most dangerous when the mind is dominated by the sex feelings, which are now coming into prominence. This is a time therefore when the youth is most benefited by mingling with others of the same and the opposite sex under circumstances in which conventions largely determine how one shall conduct one's self. It is distinctly not a time for much close association of two individuals of the opposite sex when alone.

The idea that one may not be perfectly normal in some respect, especially in a sexual way, may gain lodgment and poison the whole conscious life. The danger from ideas connected with this phase of development is much greater than from any others, partly because the instinct with which they are associated is one of the strongest and partly because of the secrecy maintained with reference to it. The individual usually has little opportunity, either from his own observations or from conversation with others, to correct erroneous ideas that he may have formed. Even if there is no thought of one's self as being abnormal, it is unfortunate for the mind to be occupied definitely with thoughts directly connected with the instinct coming into prominence. It is much better if the thoughts are occupied with other things and simply made more vigorous because of the presence of the sex impulse and the heightened feeling of personality that it gives. . . .

[**Relation to imagination.**] — Although this period may be described from the intellectual side as a period of thought development, in contrast with the

* From *The Individual in the Making*, Chapter VIII, "The Pubertal or Early Adolescent Period." By permission of, and by arrangement with, Houghton Mifflin Company, the authorized publishers. 1911.

preceding, which was a period of imaginative development, yet this is one in which the imagination is very active in picturing future possibilities. . . .

If the boy's dreams of what may be done by means of agility and strength are never fully realized, they serve their purpose if they lead him to engage in actual contests and achieve some successes. The necessary bond between ideals and achievements is thus preserved, so that ideals continue to be stimuli to action and directors of activity. The daydreams and ideals, when compared with actual achievements in games and sports, and with opinions of others, are kept more sane and normal. Daydreams and ideals regarding physical achievements are much more readily normalized than are those connected with intellectual and artistic efforts. It is not difficult to get one's self properly appraised as a runner or a jumper, but it is frequently very difficult to get youths to form a more sane judgment of their intellectual, artistic, or literary abilities. The one, however, who has had his ideals of physical achievement normalized by objective experiences, is usually easily led to form more correct and practical ideas in other lines.

All daydreams at this period include not simply a representation of something as being done, but also of another person or persons as witnessing the achievement. The pleasure experienced is not so much in the thing itself, as in the thought of how it will be viewed by others or by one particular person. . . .

Little can be done by parent or teacher in a positive and specific way toward determining just what the imaginative activity shall be during this period. Indirectly, much may be done by furnishing literature that stimulates the imagination and provides abundant opportunity for the choice of ideals, and on the other hand by providing for a large amount of objective activity in competition, and especially in coöperation, with others.

CONTRASTING PHASES OF ADOLESCENT MOOD*

G. Stanley Hall

[Vitality and lassitude.] — Youth loves intense states of mind and is passionately fond of excitement. Tranquil, mild enjoyments are not its forte. The emotions of the adolescent develop by contrast and reaction into the opposite. We will specify a few of its antithetic impulses now so marked.

There are hours, days, weeks, and perhaps months of overenergetic action. The young man trains with ardor; perhaps breaks a record; sleep may be reduced; he studies all night in a persistent cram; is swept away by some new fad; is exalted and hilarious and then reacts; is limp, languid, inert, indifferent, fatigued, apathetic, sleepy, lazy, feels the lack of motive power, and from overwork and excessive effort, when he goaded himself to do or die, he relapses to a dull state of relaxation and doubts whether anything is really worth while

* From *Adolescence*, Volume 2: Chapter X, "Evolution and the Feelings and Instincts Characteristic of Normal Adolescence." D. Appleton & Co., New York, (1904) 1911.

in the world. . . . These changes are perhaps in slight degree modified by weather, like moods, and have no doubt a physiological basis. . . .

[**Pleasure and pain.**] — The fluctuations of mood in children are rapid and incessant. Tears and laughter are in close juxtaposition. Their emotional responses to impressions are immediate. They live in the present and reflect all its changes, and their feelings are little affected by the past or the future. With the dawn of adolescence, the fluctuations are slower and often for a time more extreme, and recovery from elation and especially from depression is retarded. The past, and still more the future, is involved, and as the mental life widens, either tendency acquires more momentum. Youth can not be temperate, in the philosophical sense. Now it is prone to laughter, hearty and perhaps almost convulsive, and is abandoned to pleasure, the field of which ought gradually to widen with perhaps the pain field, although more. There is gaiety, irrepressible levity, an euphoria that overflows in every absurd manifestation of excess of animal spirits, that can not be repressed, that danger and affliction, appeals to responsibility and to the future cannot daunt or temper. To have a good time is felt to be an inalienable right. The joys of life are never felt with so keen a relish; youth lives for pleasure, whether of an epicurean or an esthetic type. It must and ought to enjoy life without alloy. Every day seems to bring passionate love of just being alive, and the genius for extracting pleasure and gratification from everything is never so great.

But this, too, reacts into pain and disphoria, as surely as the thesis of the Hegelian logic passes over to its antithesis. Young people weep and sigh, they know not why; depressive are almost as characteristic as expansive states of consciousness. The sad Thanatopsis mood of gloom paints the world in black. Far-off anticipations of death come in a foreboding way, as it is dimly felt, though not realized, that life is not all joy and that the individual must be subordinated and eventually die. . . . Youth fears inadequacy of its powers to cope with the world. . . . These moods may be more or less extreme according to environment, heredity, temperament, and other causes; may succeed each other with greater or less frequency; and may threaten to issue in brooding, depression, and melancholy, or in a careless and blind instinct to live for the day. . . .

[**Elation and depression.**] — Growth of mind and body is so rapid that it is felt to the point of overestimation. Self-feeling is fed by all the compliment and sweet flattery of affection, which is the food often really tasted for the first time with true gusto, on which it shoots up with mushroom growth. The wisdom and advice of parents and teachers is overtopped, and in ruder natures may be met by blank contradiction. It is all a new consciousness of attitude and the desire to be, and to be taken for, men and women; to be respected, consulted, and taken into confidence. The new sense of self may be so exquisitely delicate that a hundred things in the environment, that would never rankle before, now sting and irritate. . . .

But the ebb of this tide is no less pronounced, and may precede in time its

flood. The same youth with all his brazen effrontery may feel a distrust of self and a sinking of heart, which all his bravado is needed to hide. He doubts his own powers, is perilously anxious about his future, his self-love is wounded and humiliated in innumerable ways keenly felt, perhaps at heart resented, but with a feeling of impotence to resist. The collapsing moods bring a sense of abasement and humiliation, which sometimes seems like a degree of complacency to all that comes, suggesting spiritlessness. . . .

[**Selfishness and altruism.**] — Before puberty children are fed, clothed, sheltered, instructed, and done for, so that all the currents in their environment, especially with parents who follow Froebel's injunction to live for their children, have flowed toward and converge in them. Now currents in the opposite direction arise and should normally gather strength until they predominate. . . . Life is no longer egocentric, but altrocentric. Politeness and courtesy, and respect for the feelings of others are often hard at first, but are a school of minor morals graduating into that of the higher virtues. Sympathy, and especially love, wither the individual, until self-subordination may become a passion. . . Our returns here show outcrops of the grossest selfishness and greediness side by side with a generosity and magnanimity rarely found in adult life save in poetry and romance. . . .

[**Radical and conservative.**] — Less often we see one or more alternations between dominance by conservative and by radical instincts. The young man finds the world out of joint and would reform the church, school, perhaps social and family life; is sick at heart at the hollowness of established conventionality; is fired at the tyranny of wealth or trusts, and would himself reconstruct by doubting, casting out everything which does not seem to his own fledgling intelligence good, true, and beautiful. . . . The equipoise between atheism and bigotry is almost always disturbed; there is excess of skepticism or of credulity, affirmation or denial, doubt or faith, and youth is especially prone to be distracted between the instincts that make the devotee and those that make the heretic.

MENTAL DEVELOPMENT*

J. W. Slaughter

Adolescent religious experience manifests two great phases corresponding to the two great constituents of the religious system. It is first of all an attitude of feeling in which thought plays a minor part; this is succeeded by a period of critical examination which implies the exercise of reason that now appears for the first time in individual life. . . .

[**Early stage passive.**] — Until now the youth has been receptive of everything; his intellectual equipment has been given to him from the outside and accepted without question in so far as it accorded with his previous habits

* From *The Adolescent*, Chapter V, "Scepticism: The Period of Storm and Stress"; Chapter VI, "Unification: The Philosophical Psychosis." Copyright Geo. Allen & Unwin, Ltd., London. (1911) 1917. The Macmillan Company, New York.

and the influence of those he took as authorities; personal weight and influence have counted for more than the value of ideas. Any material not according with these conditions is merely refused admittance or is docked into a hidden corner of the intellectual jumble shop. Among these acceptances, and occupying the foremost place, is the system of theology delivered complete in every detail, and, as a rule, of the most rigidly systematic kind; if it be touched in any particular place there is alarm lest the whole structure be threatened. The problem of the young man for several years is to put his mind in order.

[**Mental self-assertion.**] — This new desire for consistency may be interpreted as a phase in the assertion of individuality; it is, to be sure, accentuated by modern intellectual tendencies of a scientific order. These are so pronounced as to give ground for the suggestion that has been made, that it is immoral to believe that for which there is no evidence. This new responsibility of belief to reason operating upon a groundwork of evidence opens a way for scepticism to attack a system founded upon authority. It might, then, be expected that the kinds of doubt would be those lying close to this point of intellectual transition. . . . The hiatus between the current *credo* of scientific and practical life, based on the uniformity of Nature, and the theological system, having a prestige of many generations of believers, provides for the adolescent his most serious problem, demanding an adjustment which older persons seldom feel necessary. Naturally much will depend upon the outcome. To stifle doubt and settle back into conformity closes many avenues which intellectual integrity requires to be kept open.

[**Emotional aspects.**] — Now, the central difficulty is not the intellectual one, but, rather, concerns the emotions. What is mostly needed at this time is a provisional system of values, a working arrangement with regard to the large issues of life; this organization of the emotional system being closely attached to the elements of belief is forced to crumble with them. Were scepticism only a logical exercise it would matter little, but the adolescent feels that the struggle is one of life and death; that the whole significance and value of existence is dependent upon his saving the system intact from the disintegrating action of reason. When he finds himself forced to concede one cherished belief after another he is driven into gloom and despair; the whole universe seems to fall about him like a house of cards and the monster of doubt does not stop with this first act of demolition, but carries its ravages to the extreme boundary — it becomes that morbid, ingrown, double-edged kind which doubts the existence of the doubter; the world resolves itself into shadows and shams. . . .

[**External restrictions.**] — It seems best to describe the stages of intellectual development, beyond that of theological interest, in their fully typical forms under conditions of what is regarded as the maximum of opportunity, in the modern college or university. Approximation to this typical development may be of any degree, the chief limiting factor being the increasing necessity at this time of life to select and prepare for a future occupation. In these cases the practical trend of interest, as in other cases domination by

sports and games keeps more purely intellectual problems in abeyance and absorbs the greater part of adolescent energy. . . .

[**Search for simplicity.**] — The first pronounced phase is that of domination by the Hellenic conception of life. . . . To a nature full of conflicting elements and equilibrium constantly disturbed by a sense of the eternities, nothing in the world seems so desirable as the simplicity and balance of the Greek. . . . It cannot be contended that a view of life which aims at self-development or even self-expression is ultimately satisfactory, but for a time it serves a useful purpose. . . .

[**Humanistic interests.**] — From the period of Hellenic domination adolescent progress seems to be along divided but parallel paths, with chief interest either following continuously or alternating between the two. The majority of adolescents prefer for a time to follow the ways humanity has opened up for expressing its feeling values; these lead to a set of humanistic studies concerned largely with history, literature, and the arts. The points of entrance are, as a rule, those of closest contact between history and the Greek spirit, namely, the Renaissance and German Romanticism. As the adolescent feels himself gaining a slight mastery in the field of the humanities he passes into a set of characteristic phases; his tastes and attitudes become very modern; his hatred of Philistinism is unbounded; he feels himself at the beginning of a new period in literary and artistic history; the best taste is found in those productions most calculated to outrage the multitude; wisdom can only be exhibited in the clever paradox; art is for art's sake and has no relation to morals, and its value is proportioned to the degree in which it exhibits this disparity. The adolescent feels great pride in arraying himself with the decadents, whose works are for a time seldom out of his hands. He begins a small cult among his friends, who happen to be like-minded, and nights are spent in discussing the prophets of the new era.

[**Philosophic interests.**] — The other path of interest usually followed under university conditions is that of philosophy. Many adolescents rush into it very early if their struggles with scepticism have been very severe — a lifeboat seems to be coming which will pick them out of the sea and the assurance with which the professor of philosophy navigates his craft gives them boundless hope. . . . Modern philosophy as usually taught deals with a succession of systems which seem to rest upon each other like the stories of a building; the whole structure being, of course, topped by the professor's own system. . . . It would probably be most serviceable if it could be taught as a set of folk products, like literature or law, but unfortunately it is treated as the evolution of a device for thinking away the world. . . .

[**Scientific interests.**] — The educational value of science hardly needs emphasizing after the years of struggle through which Huxley brought it to recognition. In individual development the full appreciation of its value comes, if ever, near the close of adolescence. It is doubtful if science, as usually taught, greatly assists development before this period of life. Truth for its own sake is a goal which must be approached through many stages,

and until this time truth for life's sake has overshadowed other motives. With the passing of the system-making phase, the desire for exact and verifiable knowledge comes into the foreground. This does not imply that the scientific field can be entered at once, but rather that the science of the self-sustaining and specialist order is the final step in a long course of preparation. The great difficulty is that the scientific curriculum is arranged in terms of the old formula of simple to complex rather than in terms of the stages of growth. If regardful of these, it would frankly relate itself to the departments of experience out of which, historically, all of the sciences have grown. The first application of this principle would be the destruction of nearly all elementary science textbooks. Ultimate efficiency in science obviously depends upon the amount of human interest and energy that are brought into it — for a child to have a few animals as pets will go further toward the making of a zoölogist than the dissection in the laboratory of any number of types. . . .

At the end of his development the modern adolescent is left with one great hiatus, that between his humanistic and his scientific outlook. Poetry and science have not yet been able to move along the same path — nature for each is still a different thing.

NORMAL DEVELOPMENT OF THE EMOTIONS*

J. W. Slaughter

[Adolescent love.] — The psychology of the sentiments finds one of its most important examples in love between the sexes, and the development of this sentiment is one of the eminently significant phases of growth. It is necessary to note that there is no difference in type of organisation and mode of formation between this and other sentiments; that which distinguishes it is the fact that the emotional system has as a core the reproductive instinct; the distinction, however, between the two is clearly recognized. Other sentiments, equally orientate themselves along the lines indicated by instinct, as, for example, the love of the mother for her child. If these facts are admitted, it is clear that love between the sexes depends for its growth upon the conditions found necessary in any other case, namely, a succession of emotional experiences in relation to an object. This statement is in contradiction to the common supposition that it is possible for the sentiment to spring into existence fully formed. . . . Much of adolescent daydreaming follows the lines here indicated. Love of a real kind toward a real person is then dependent upon the usual conditions of the growth of sentiments, conditions of actual and of more or less prolonged experience. The failure to run smoothly helps in the making of true love. . . .

[The early phase.] — Juvenile love, as manifested during the first half of adolescence, is biologically the most interesting of all the forms that adoles-

* From *The Adolescent*, Chapter IV, "Adolescent Love"; Chapter VIII, "Juvenile Crime and its Treatment." Geo. Allen & Unwin, Ltd., London, (1911) 1917. The Macmillan Company, New York.

cence may assume; it is the true counterpart in individual development of the mating season among the lower animals. The boy suddenly begins to take an interest in his own appearance; for the first time in his life he voluntarily attends to his hair and teeth, his boots and linen; he becomes punctilious in regard to his clothing, and the choice of neckties is an important event. When in the company of other boys and in the presence of girls, he seeks occasions for showing his courage and strength; he willingly attacks the largest boy and incurs risk to limb in feats of skill and prowess. In the presence of the loved one he is awkward and even paralyzed in expression; he never ventures to declare himself but makes use of only the vaguest hints, and often contents himself with seeing her from afar. Development in the girl is on lines similar to those observable during the mating season; she preserves an attitude of seeming indifference and is most careful not to give the attention which the boy is struggling to attract; at the same time she is seeing and understanding everything.

[**Love for older person.**] — Another phase of the same period is that known as love of an older person. The shifting of adolescent affection along the age scale is a usual, if not universal, tendency. In addition to the motives operating between boys and girls of the same age, there is in love of the older person a larger element of respect and the mystery of complete development joined, as a rule, with sympathetic and gracious treatment. The situation is often one that gives opportunity for beneficial influence and guidance; the older person must not be too much flattered by adolescent affection; it is a passing phase and involves the projection of an ideal to which the older person may, in reality, only remotely approximate. Now and then an adult will be found so deficient in either intellect or character as to treat the matter seriously or selfishly. . . .

[**Revulsion.**] — There is frequently, if not usually, in mid-adolescence a period succeeding upon that already described, of the withdrawal of the two sexes from each other. It is an inhibition due to the comparative intensity of interests; the eyes of the youth are upon the world and his own future; his moral and religious struggle is reaching its highest intensity; he, therefore, permits as few thoughts as possible about the opposite sex; it is the period when the seclusion of the cloister is needful to clarify problems and rectify views. The monastery is the social device arranged for those who continue permanently at this level of development; the college is for those who are expected to pass through it; masculine company is far more congenial than feminine; woman is mystifying and baffling, and there are too many other things in life with the same qualities that demand attention much more imperiously than she does. This attitude of withdrawal and inhibition is so important a factor as to give rise to an intense resentment toward coeducation during the first university years. What has been said of boys probably applies, though not in equal degree, to girls. Many girls now desire the life of the convent; irrevocable choice at this time in such matters is unfortunate, for this is only a phase of development.[1]

[1] See Chapter XVI, Coeducation, p. 166.

[**Mating phase.**] — When adolescent love comes again it is toward the close of the period, and it has the characteristics of the final mating time. Both biology and psychology prescribe marriage at the beginning of adulthood, and it would probably come quite naturally if free from the meddlesome wisdom of older persons; to mate later than the middle twenties involves disadvantages for which no economic considerations can compensate. . . .

[**Juvenile crime.**] — The statistics of crime give evidence that the proportion of juvenile offenders to the whole population has enormously increased in the last two or three decades, and its present rate of growth is so high as to constitute one of the most urgent problems of the times. It was thought a generation ago that the civilizing influences attendant upon the new movement toward popular education would be effective in diminishing juvenile crime, but the reverse has proved the case, for popular education does not necessitate or imply civilizing influences. . . . It will, therefore, be useful to inquire what factors in adolescence predispose to the criminal life, and what results existing or proposed methods of reform may be expected to effect. . . .

[**Revolt and revaluation.**] — The prime condition of adolescent outbreaks of an antisocial or criminal kind is to be found in the general psychological situation already described. It is a time when new emotions and impulses bring about an upheaval and re-formation of the whole moral situation. Years of discipline are required before the newly made character possesses sufficient stability to keep it from being overturned in any one of many directions. The element of normal control is to be found in the ideal which the adolescent has placed before himself; his great problem and source of perpetual suffering is the chasm between what he is and what he desires to be. Any weakness of ideal involves a surrender to the strong and now ungoverned hereditary forces. Most cases of criminality are cases of arrest and reversion to the moral life of childhood where control has to be exerted from the outside.

XXIV. HEREDITY

There is constant confusion, when thinking about the place of heredity and of environment in the development of the individual, due to the traditional mode of considering these two aspects of life as "forces" which influence development. If they are "forces," then it is reasonable to ask which is greater, or more influential; and that is something that has given many people serious concern and even anxiety.

It is helpful to clear our minds of any preconception revolving around this issue of relative potency between heredity and environment. The fact is that *there is no such issue;* the two aspects of life which we embrace under these two terms are in no sense opposed to each other, they are not separable, neither of them has any meaning apart from the other.

The organism is a bundle of potentialities, but these potentialities manifest themselves or become realities only as the developing individual—fertilized egg, embryo, infant—is exposed to special conditions. It is never possible for *all* of the "inherent" potentialities to find realization for the simple reason that it is impossible to expose the developing organism simultaneously to various conditions; we cannot have it hot and cold at the same time; conditions that bring out one set of traits at the same time block the development of another set. The totality of potential characteristics, mental and emotional as well as physical, we call the "heredity." The conditions of life constitute the "environment." Our control comes to be effective as fast as we discover how to *condition* the child's development, whether we think of this primarily in terms of health and endurance, for example, or in terms of likes and dislikes, or in terms of knowledge, sense experience, motor skill, or what not.

There is of course an increasing body of knowledge regarding the way particular traits — mental as well as physical — are transmitted from the parental stock; and this knowledge points to the idea that certain types of mating are desirable, that others are undesirable, whereas in some cases the mating may be of no particular significance. But our immediate problem is to understand what is best to do with the children as we have them.

THE SOURCE OF ORIGINAL NATURE*

Naomi Norsworthy and Mary Theodora Whitley

[**Limitations of heredity.**] — The fact of being a member of the human race bears with it certain capital in terms of original nature. . . . A man is what he is primarily because he is a member of a certain family, sex, and race. Those three factors give him his inheritance, his capital, his stock in trade, and these birthday gifts bound his ultimate achievement. True, environment, training, education, play their part in the production of man as we idealize him, but that part is conditioned and limited by the nature which is being influenced. In other words, though Burbank may produce a prickless thistle by careful selection, and though we may improve a variety of figs immensely by careful regulation of the environment, yet we need never expect to gather figs from thistles, their natures being originally so differently determined.

[**Limitations of environment.**] — Thorndike writes: "The importance to educational theory of a recognition of the fact of original nature and of exact knowledge of its relation, shown in determining life's progress, is obvious. It is wasteful to attempt to create and folly to pretend to create capacities and interests which are assured or denied to an individual before he is born. The environment acts for the most part not as a creative force but as a stimulating and selective force. We can so arrange the circumstances of nurture as to reduce many undesirable activities by giving them little occasion for appearance, and to increase the desirable ones by ensuring them an adequate stimulus. We can, by the results we artificially attach to wisdom, energy, or sympathy, select them for continuance in individual lives. But the results of our endeavors will forever be limited as a whole by . . . inborn talents and defects."[1] Nor is this limitation of human possibilites of growth a pessimistic doctrine. The sure realization of what has always been true is not pessimism, nor is it itself any curtailment of actual attainment. When the differences between the actual life of a savage in Central Africa and that of a civilized man are considered, the tremendous effect of environment as a stimulating and selective force on races is overwhelming. And when, as James has so effectively pointed out, the differences between the ordinary, everyday life of an individual and that of the same individual in some great issue of life are considered, the probabilities of unknown and unused levels of energy and force in every human creature seem indisputable. The educator has still a task of infinite magnitude amid unknown potentialities, and to make due allowance for the sources and limitations of original nature will but make his work more effective and less wasteful. The recognition of the respective parts played by nature and nurture make it imperative for him to know the child mind in terms of its equipment, and to know the laws by means of which it may be changed.

* From *Psychology of Childhood*, Chapter I. The Macmillan Company (1918).

[1] Thorndike, E. L. — *Educational Psychology*, p. 44. Teachers College, Columbia University, 1913–14.

HEREDITY AND EDUCATION*

Herbert S. Jennings

[Duplicates impossible.] — A more efficient device for preventing the occurrence of two individuals alike in fundamental nature could hardly be imagined (than that by which sexual reproduction takes place). All the steps in the process are visible and can be studied in detail; we can apply arithmetic to the matter and figure out at least the minimum number of diverse combinations that may be produced by any two parents. In man, with the 24 diverse sets of characters, any single individual may produce 4096 different combinations of characters;[1] and the number producible by two given parents runs up to more than 500,000. Any of these combinations is equally likely to appear; that is, children of any of these thousands of different characteristics might be born to a given pair of parents. But as of course only half a dozen or so are actually realized, there is no chance for two alike, and no one in the world can predict the nature of the few children that come into existence.

[Results not predictable.] — To be able to know beforehand from the characteristics of the parents what will be the characteristics of the offspring has long been one of the dreams of science; but, to paraphrase the words of the poet, "now we know that we never can know" how to do that, in man — for the characteristics of the parent do not determine what combination of characters shall appear in the offspring.

This fact may come as a hope and comfort to parents whose own lives have not gone as they wished, and who wonder if heredity condemns their children to the same failure as themselves. There is no one on earth that can predict what combination of qualities will come from the union of any two normal individuals, and there never will be. "Who toiled a slave may come anew a prince" in the next generation — by the working out of recombinations in heredity. However unworthy we may feel ourselves to be, we can always hope for our children — with hopes based upon the knowledge that science gives. Knowledge of these open possibilites must inspire our efforts to help our children unfold what is in them; and must lend an interest to their progress that any false belief in a set and iron law of inheritance would crush out. The literally inexhaustible variety of possibilities offered by nature realizes for practical purposes the ideal of freedom of the will; realizes in effect the dream that there are unlimited possibilities for any individual.

Looked at from the obverse, this knowledge is equally important. Superior parents have no guarantee that their children will be superior. No one can

* From *Suggestions of Modern Science Concerning Education*, Chapter I, "The Biology of Children in Relation to Education." The Macmillan Co. (1917) 1921.

[1] The reference is to the 24 chromosomes found in the cells of human beings. Since the chromosomes (see "Nuclear division," page 279) carry the *genes*, or the structures that determine the bodily characters of the offspring, there must be at least "24 divers sets of characters" in every human being. Actually, of course, there are vastly more.—*Ed.*

predict the qualities that will arise from their combination, for millions of possibilities are equally open. Superior parents must watch and help their children with the same anxious care that others must use.

Of course we know that gifted parents are much more likely to produce gifted children — inferior parents inferior children. But it is a matter of averages when large numbers of cases are considered. No parent has a "sure thing" in his children, either for good or ill; all may hope and all must fear.[1]

[**Practical application.**] — Nature then has expended all her ingenuity in making our little flock of children as diverse as she possibly can; in concealing within it unlimited possibilities which no one can define or predict. It sometimes seems as if we, their parents, in our process of educating them, were attempting to root out all these diversities, to reduce our flock to a uniform mass. Now, there are several things to be said as to this. First, you can't do it, unless your procedure is so radical as to reduce them all to mere stupidity or lifelessness. Second, the only way that appreciable progress can be made in the attempt is by cutting off, stunting, preventing the development of the special and distinctive qualities of the individuals. Unfortunately, this can be done to a certain extent, but only by a process which may rightly be compared with the taking of human life. But why should we desire to do this? Is it not variety of powers and character that the world needs? Does not society become steadily more and more diversified, needing in every nook men of special powers? Is not a world of variety intensely more interesting, more worth living in, than a world of monotonous uniformity? And yet the world has developed a system of education which, until recently, and to a considerable degree yet, tends to the suppression of individuality. How did this contradiction arise? Its source I believe is not wrong ideals nor mere perversity, but, as in most cases of wrong action, a misunderstanding of the facts. Our schools, like much else in society have been based on a false idea of the meaning of democracy; on the theory that democracy means that all human beings are essentially alike. Hence a single impersonal method of treatment was considered possible for all cases. And until lately science could not speak the positive word necessary to place that theory with the theory that the earth is flat. But the time has come when biological science can assert positively that all individuals are diverse in their underlying constitution; and can give the detailed specifications on which that assertion is based. Any system, be it of education or of medicine, of religion or of politics, that does not recognize this fundamental fact must go into the discard. Democracy, correctly understood as the freedom of each individual to develop the peculiar capabilities that are in him, is precisely what education requires.

[1] It should be added, to avoid misunderstanding, that in certain fully abnormal human beings, such as the feeble-minded, it can be predicted (in certain cases at least) that the children will be like the parents in that abnormality. But these cases do not touch personally the normal human beings that are sending their children to school.

INHERITANCE OF MODIFICATIONS*

MICHAEL F. GUYER

Non-inheritance of parental modifications — . . . . Like many other biological conclusions those relative to the noninheritance of parental modifications are of extreme importance to humanity. It is clear that they have not only physical but social, ethical, and educational significance. For if the education which we give our children of to-day, or the desirable moral conduct which we inculcate does not affect the offspring of succeeding generations through inheritance, then the actual progress of the race is much slower than is commonly supposed, and the advance of modern over ancient times lies more in an improvement in extraneous conditions through invention and the accumulation and rendering accessible of knowledge, than in an actual innate individual superiority. And when we face the issue squarely we have to admit that there is no more indication of the inheritance of parentally acquired characters as regards customs, knowledge, habits, and moral traditions than there is of physical features. In fact, if such acquirements were inherited then we should soon have a race which would naturally, spontaneously as it were, do what its ancestors did with effort. Yet we do not find the children in our schools reading, doing sums, and developing proper social relations without ceaseless prompting and urging on the part of the teacher. Indeed, I can testify that this necessity carries over even into a university. In short, the habits and standards of each generation have to be instilled into the succeeding generation.

No cause for discouragement. — At first glance, when we realize that notwithstanding our individual advancement, that in spite of all our painstaking efforts toward self-improvement, we can not add one jot or tittle to the native ability of our children, that, aside from possible advantageous germinal variations, they will have to start in at approximately the same level as we did, and like us will have to struggle, or be coaxed, pulled, or spurred up to the higher reaches of attainments, we are apt to feel discouraged and to look on heredity as the hand of fate which irrevocably bars progress. But there is another side to the picture. This very fact of heredity which cannot be altered at will is the conservative factor which maintains the excellence of our standard strains of plants and animals, and sustains man himself at his present level of accomplishment. While we are denied advancement through the efforts of the flesh, we are also largely protected from our misfortunes and follies, as witness the noninheritance of mutilations, of various maladies of extrinsic origin, or of personally acquired bad habits.

[Conserving superior strains.] — If we can not hand on to our descendants a personally enhanced blood heritage, we at least can do our share toward building up a social heritage of established truth, of efficient institutions, and of stimulating ideals, through which their dormant capacities may be led to

* From *Being Well-Born*, Chapter V, "Are Modifications Acquired Directly by the Body Inherited?" Chapter VII, "Responsibility for Conduct." Used by special permission of the publishers, The Bobbs-Merrill Co. 1916.

expand more surely and more effectively to their uttermost limits. Each advance in such social heritage will tend more and more to create an atmosphere which will make it sure that the occasional real progressive and permanent variations which occur from time to time will find adequate expression and preservation in future lines of descendants. It will reduce the numbers of our "mute, inglorious Miltons" by more certainly disclosing the individual of exceptional talents and insuring for him an opportunity of revealing them to the best advantage. Above all, since surrounding influences are especially powerful on young and developing organisms, we should realize that great care must be exercised in behalf of the young child to secure an environment which is saturated with wholesome influences. For it is a rule of development that if the environment is faulty the organism is impaired . . . .

[**Control of germ possibilities.**] — It may be said in a sense that there exists potentially in any germ all the things that can possibly come out of it under any obtainable conditions of environment. The very initiation of a given mode of expression by some environmental factor, however, often necessarily excludes many of the others. We get a given average result ordinarily because development normally takes place in a given average environment . . . .

We know that what in the ordinary course of nature was "predestined" to become one individual nevertheless contains the possibility of becoming four or more if the environing conditions are made such as to bring about a separation of the cleavage blastomeres. Or a fish egg that contains the possibility of becoming a normal two-eyed form also contains the possibility of becoming a one-eyed form and can be made to do so by certain modifications of the conditions under which it develops. However, we must not be misled by this comparison, for the fact is that we are not creating anything new by these environmental upheavals, but are mainly altering features that already exist. Beyond doubt the nature of the material is of greater import in the specificity of the outcome than are the external forces brought to play on it. The only point I wish to make is that even what seem ordinarily to be predestined ends can be altered by environment, and that the probabilities are that certain features are relatively indifferent at their inception, the environmental factor adding the final touch of specificity. And our common experience in education would indicate that the same is true of mental conditions, including behavior. The actual appearance of a particular trait is not necessarily always a matter of an initial trend, but may be due merely to the fact that its development is possible under certain conditions of environment and that these conditions have prevailed in the given instance. And even where there is a specific bent it may be arrested through the awakening of a contrary impulse, or, on the other hand, its exercise may prevent the engendering of the opposite impulse.

[**Opportunity and proper stimuli for the development of good traits.**] — It is clearly our duty to see that the expression of good traits is made possible. We must throw a sheltering screen of social environment around the young individual which will fend off wrong forms of incitement and chances for harm-

ful expression, and we must provide proper stimuli and afford opportunity for development of proper modes of expression. We must not forget that a normal instinct denied a legitimate outlet will not infrequently find an illegitimate one. Above all we must not forget the vital importance of establishing correct habits nor the possibility of even replacing undesirable ones by good ones. If training can redirect the machine-like behavior of as lowly a creature as the starfish into new courses, why should we be so willing as some of our geneticists would seem to be to throw up our hands and admit failure in the case of man before we have even made a rational attempt to correct the evils in question? We have learned that even in lowly organisms behavior is not only the result of an innate constitution but also of the degree and kind of stimulations to which it has been subjected.

If the individual himself has not the initiative or will to make the attempt to set up proper or corrective habits, or to cultivate the necessary specific inhibitors, then all the more is it our duty to see that he is led by suggestion and drill into the proper routine of activities for their establishment. For if the individual with propensities toward moral obliquity is to be saved to society it must be through the stereotyping effects of good habits.

HEREDITY*

Benjamin C. Gruenberg

Causes of variation. — We know that when a cow is undernourished, she will not yield as much milk as she does when she is properly fed and cared for. This accounts for much of the difference between one farmer's cows and his neighbor's cows. On the other hand, in a given herd of cows, all of which have received the same care and feeding from the time they were born, there will still be great variations in the ability to produce milk. In the first case we say that the yield of the cow has been *modified* by the treatment she has received. In the second case we say that the cows are of different *breeds*, or strains.

All around us we see examples of modifications resulting from differences in the conditions of development. Differences of feeding affect plants as well as animals. In any season we may see fields of stunted, backward crops and fields of luxuriant growths. In every city we may see well-fed, vigorous, and alert men and women, as well as shriveled, miserable, and timid men and women. It is important to know whether, and how far, these differences can be controlled.

It is quite impossible to say offhand, in any given case, how much is due to inherited differences or *breed*, and how much is due to "fluctuations" produced, or induced, by the *environment*. But all farmers know that, besides *controlling the conditions* under which their plants and animals develop, they must also be careful to *select the right kinds of stock* or seed. The best of care

* From *Elementary Biology*, Chapter LXXIX, "Variation"; Chapter LXXX, "Heredity"; Chapter LXXXII, "Heredity and Protoplasm". Ginn & Co. 1919.

HEREDITY IN PLANTS

NAME OF PLANT	DOMINANT CHARACTER	RECESSIVE CHARACTER
Wheat	Late ripening	Early ripening
Wheat	Susceptibility to rust	Immunity to rust
Barley, Wheat	Beardless	Bearded
Maize	Round, starchy kernel	Wrinkled, sugary kernel
Maize	Yellow grain	White grain
Garden pea	Yellow seed	Green seed
Garden pea	Tallness	Dwarf
Garden pea	Smooth seed	Wrinkled seed
Tomato	Two-celled fruit	Many-celled fruit
Cotton	Colored lint	White lint
Stock, Sweet pea, Jimson weed	Colored flower	White flower
Sunflower	Branched stem	Unbranched stem
Nettle	Saw-edge leaves	Smooth-margin leaves

HEREDITY IN ANIMALS

NAME OF ANIMAL	DOMINANT CHARACTER	RECESSIVE CHARACTER
Cattle	Hornlessness	Horns
Horse	Trotting	Pacing
Silkworm	Yellow cocoon	White cocoon
Rabbits, Guinea pig	Short fur	Angora fur
Mice	Normal movements	Waltzing habit
Mice, Rabbits, Guinea pig	Pigmented coat	White coat
Leghorn poultry	White plumage	Pigmented plumage
Salamander	Dark color	Light color
Canary	Crested head	Plain head
Poultry	Rose comb	Single comb
Poultry	Short rump	Long tail
Land snail	Plain shell	Banded shell
Pomace flies	Red eyes	White eyes

will not make an ordinary white bean develop into a plant bearing lima beans, nor will extra feeding make a scrub cow give the kind of milk that may be obtained from a good Jersey cow. . . .

The problem of heredity. — How is it that the characters of the parents are transmitted so regularly to the offspring? How is it that, in spite of the close resemblances between parents and offspring, these are never exactly alike in every point? These questions have to do with the problem of *heredity*.

Analysis of the problem. — Certain facts, or laws, of heredity were first discovered in part by an Austrian monk named Gregor Mendel (1822–1884). Mendel had long puzzled about the great variations among his garden peas. There were tall plants and short ones, plants with white flowers and plants

HEREDITY IN MAN

DOMINANT CHARACTER	RECESSIVE CHARACTER
Curly hair	Straight hair
Dark hair	Light; red
Beaded hair	Even hair
Brown eyes	Blue eyes
Normal pigmentation	Albinism
Hapsburg lip	Normal lip
Normal muscular tone	Low muscular tone
Nervous temperament	Phlegmatic temperament
Fused fingers or toes	Normal digits
Supernumerary digits	Normal number
Broad fingers (lacking one joint)	Normal length
Limb dwarfing	Normal proportion
Normal growth	General dwarfing

with colored flowers. In some plants the seeds were yellow, in others they were green; some seeds were smooth, others were wrinkled. All in all, he studied seven different pairs of contrasting characters in regard to which pea plants differ. He noticed further that a given plant might have any combination of single members of these pairs. A hairy plant might be tall or it might be short, it might have yellow seeds or it might have green seeds, it might have full pods or shrunken pods, and so on.

Mendel's experiments. — Fixing his attention on *a single character at a time*, instead of trying to think of the variety as a whole, Mendel crossed garden pea plants that were different. Thus, he crossed green-seeded plants with yellow-seeded ones, tall ones with short ones, hairy ones with smooth ones, and so on for all the pairs of differences. . . .

Most people have the impression that where individuals with differing characters are mated, the offspring will show characters somewhere *between* the characters of the parents. The reason for this common belief lies in the fact that in our everyday experience we notice that *children resemble both parents;* but most of us have failed to notice further that this resemblance to both parents consists not merely in *having many characters halfway between* the corresponding characters of the parents, but also in *having some characters just like those of the mother and other characters just like those of the father.*

The law of dominance. — Mendel found that this complete resemblance of the offspring to *one* of the parents (in regard to a particular character) was quite the rule with each of the other pairs of characters. Thus, the offspring of a tall-and-short cross were all tall. The offspring of a smooth-and-wrinkled-seeded cross were all smooth, and so on. This fact is called *dominance*, the idea being that where two characters of a pair meet in an individual one of them masks or dominates over the other, called *recessive*. The latter is not destroyed, as we shall see. Of course, we cannot tell which of the two characters in a pair will appear in the offspring before trying them out. In the tables on page 272 are given the dominants and their alternatives for a number of charac-

ters in plants and animals. For many other characters it has been found that the offspring does *not* show complete dominance of one alternative.

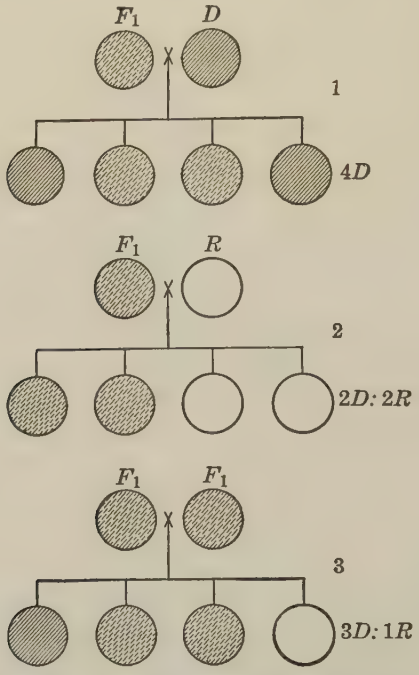

FIG. 1*. MENDEL'S LAW OF SEGREGATION

When two individuals with a pair of alternative characters are mated, the offspring will all have the character of one of the parents; this character is called the *dominant* one, and the alternative character is called the *recessive*. The hybrid offspring of such a mating is represented in the diagram by F_1. Offspring of this kind *resemble* the dominant parent *D*, but experiments show that there is a real difference. If such a hybrid is mated with one of the pure dominant type, *1*, the next generation will all *appear* dominant. If such a hybrid is mated with an individual of the recessive type, *2*, the offspring will consist of dominants and recessives, in about equal numbers. If two such hybrids are mated, *3*, the offspring will show both dominants and recessives, in the proportion of three to one. This splitting up of the offspring of hybrids into two types showing ancestral factors is almost universal; it is called *segregation*.

The law of segregation. — The yellow seeds of the hybrid[1] pea plant are hardly distinguishable from the pure yellow seeds of one parent. With plants

* From *Elementary Biology* by BENJAMIN C. GRUENBERG. Ginn & Co. 1919.

[1] The word *hybrid* was formerly applied to the offspring of two parents of different species or races, as, for example, the mule, or a mulatto, or the offspring of a Caucasian and an Indian. It is now used quite generally among biologists, horticulturists, animal breeders, etc., to mean the offspring of two parents that differ with respect to any particular character. For example, a seedsman might speak of a hybrid tomato, meaning a plant resulting from a cross between two varieties of tomatoes, and so on.

grown from the hybrid yellow seeds Mendel brought about three classes of cross-pollenation. . . .

1. He crossed hybrids with plants of the yellow-seeded parent variety.
2. He crossed hybrids with plants of the green-seeded parent variety.
3. He crossed hybrids with hybrids.

The results of these crosses are indicated in Fig. 1.

This fact of splitting up into the two ancestral types has been found to be quite general among all plants and animals that have been tested, and it is called the *Law of Segregation*. The idea is that the hybrid, no matter how

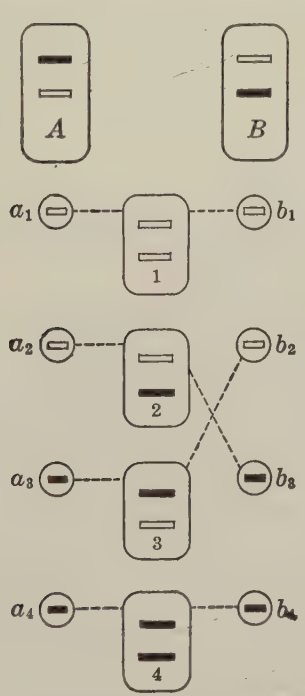

FIG. 2*. THE LAW OF SEGREGATION

A hybrid produces germ cells of two kinds with respect to a pair of contrasting characters — one kind bearing the elements needed for developing the dominant character, and the other kind bearing the elements that result in the recessive. If two individuals, *A* and *B*, both hybrid and both showing the dominant character, are mated, they may give rise to three kinds of offspring. The germ cells given off by *A* are of two kinds, a_3 and a_4, having the factor for dominance, while a_1 and a_2 bear the factor for recessiveness. In the same way, *B* bears two kinds of germ cells. The two kinds of eggs can combine with the two kinds of sperms in four ways: (1) a recessive egg combines with a recessive sperm; (2) a recessive egg combines with a dominant sperm; (3) a dominant egg combines with a recessive sperm; (4) a dominant egg combines with a dominant sperm. As a result, half the offspring are again hybrid and the other half pure; and the pure are likely to be dominants and recessives in equal numbers. Note that the hybrids resemble the dominant grandparent, giving the *appearance* of one recessive to three dominants.

* From *Elementary Biology* by BENJAMIN C. GRUENBERG. Ginn & Co. 1919.

much it may resemble one of the parents (with respect to one or more particular characters), does not constitute a "pure" kind of organism, inasmuch as it cannot reproduce itself in offspring all having the same character.

The plants resulting from the mating of hybrids (that is, the *segregated* yellow-seeded and green-seeded individuals) were experimented with further, and this remarkable discovery was made: the green-seeded individuals, whether mated with one another or with green-seeded individuals of the original stock, always produced green-seeded offspring. In other words, although they had hybrid parents with yellow seeds, they themselves were pure in the sense that they reproduced or transmitted the green-seeded character to their offspring in exactly the same way as their pure green-seeded ancestors. This principle has been found to hold true in all cases where experiments with plants and

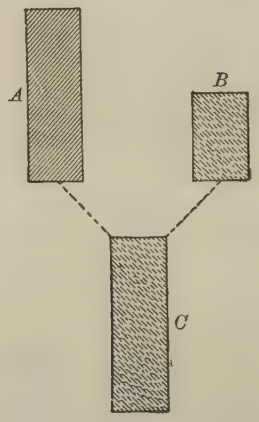

FIG. 3.* INHERITANCE OF TWO OR MORE CHARACTERS

The offspring of two parents, *A* and *B*, resembles both parents, but it does not, as a rule, stand midway between the parents with respect to the several characters. Instead, the offspring will be like one parent in some characters and like the other parent in other characters.

animals showing alternative pairs of characters have been carried far enough. An individual of hybrid parentage having a recessive character is called an *extracted recessive*, or the character in question may be spoken of as the *extracted recessive*. It is just as pure with respect to that character as an organism can be.

On the other hand, the yellow-seeded offspring of the yellow-seeded hybrids turned out to be of two kinds: (1) those that produced only yellow seeds in subsequent generations, pure like the yellow-seeded ancestor; (2) those that behaved like their hybrid parents, that is, split up again into dominant-appearing and recessive-appearing individuals in the proportion of three to one. The two classes are produced in the ratio of one pure dominant to two mixed or hybrid, although the two classes may have the same appearance.

* From *Elementary Biology* by BENJAMIN C. GRUENBERG. Ginn & Co. 1919.

The simplest explanations for these mathematical relations between the characters is to be seen from the diagram in Fig. 2.

Combinations of characters. — In the meantime we must not overlook the fact that every organism is made up of many characters. After finding out that his peas showed dominance and segregation with respect to several of the pairs of characters, Mendel went farther and studied the results of his crossings to find out the behavior of *combinations of characters*. For example, suppose that two plants used in an experiment differed with respect to *height*

FIG. 4.* THE LAW OF UNIT CHARACTERS ILLUSTRATED BY GUINEA PIGS

Pigmentation in these animals is dominant over albinism. Short hair is dominant over long hair. Rough coat is dominant over smooth coat. When two pure individuals like those shown are mated, the offspring will be short-haired, dark, and rough-coated. On mating the hybrids together in sufficient numbers, the segregation will result in producing every combination of these three sets of characters: dark-short-rough; dark-short-smooth; dark-long-rough; dark-long-smooth; white-short-rough; white-short-smooth; white-long-rough; white-long-smooth. The proportions will be such that *for each pair of contrasted characters* there will be one recessive to every three dominants. (From photographs lent by Professor W. E. Castle.)

as well as with respect to *seed color*, what would be the results? Experiments showed that if a tall green-seeded parent was crossed with a short yellow-seeded one, the next generation appeared to be all tall yellow, resembling one parent altogether in one character, and the other parent altogether in the other

* From *Elementary Biology* by BENJAMIN C. GRUENBERG. Ginn & Co. 1919.

character (see Fig. 3). In succeeding generations the offspring of such a hybrid would show four types — tall-yellow, short-yellow, tall-green, short-green.

The conclusion from this experiment, and many others like it, is that each pair of dominant-recessive characters behaves according to the two laws described above, without regard to what other characters may be present. This general fact has been found to hold for many species of plants and animals that have been used in experiments, and is sometimes called the *Law of Unit Characters* (see Fig. 4).

This principle will help us to understand how there can be such great diversity among the individuals of any given species of plants or animals, or even

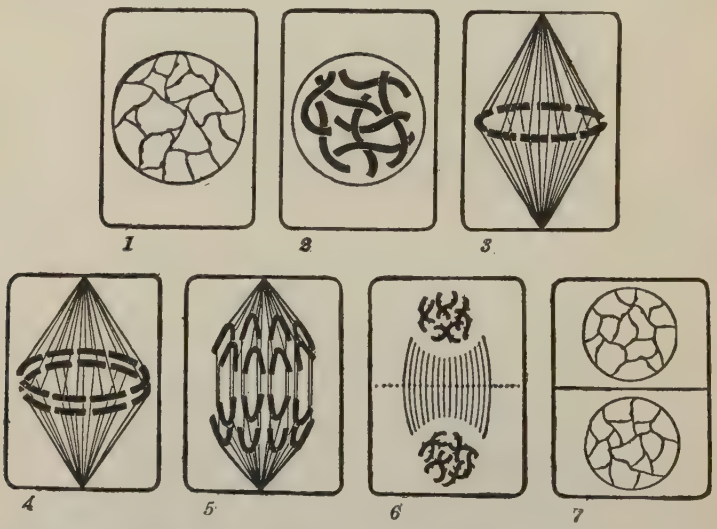

FIG. 5.* THE NUCLEUS IN CELL DIVISION

1. Diagram of a cell with the chromatin in a tangle, or network; before cell division the chromatin assumes the form of a continuous thread. The thread breaks up into a definite number of pieces, or *chromosomes, 2;* the number of these is constant for any given species of plant or animal. The chromosomes arrange themselves in a central ring, *3;* the membrane inclosing the nucleus disappears; fine threads appear to connect the chromosomes with tiny bodies at opposite ends of the cell. Each chromosome splits in two lengthwise, *4.* The members of each pair move from each other to opposite ends, *5.* The half-chromosomes form two new tangles, *6,* and gradually lose their definition. The new masses of chromatin become the nuclei of two new cells, *7.*

among the brothers and sisters of any family. The greater the number of characters, the greater is the possible number of combinations; and the smaller is the chance of any given combination occurring again. . . .

What is inherited? — It is common to speak of the inheritance of characters as though something passed on from parents to offspring. But a moment's

* From *Elementary Biology* by BENJAMIN C. GRUENBERG. Ginn & Co. 1919.

thought will show that nothing is transmitted in the ordinary literal sense. What is really meant by saying that a plant or animal has inherited certain characters from his parents is that *there is something in the fertilized egg that makes possible the development of those characters, and whatever is in the egg must have come from the gametes, and so, presumably, from the parents.*

Nuclear division. — A study of cells shows that the nucleus contains a tangle of substance which behaves in a very definite way before cell division takes place. This substance is called *chromatin* because it readily absorbs various anilin dyes and thus appears highly *colored,* in contrast to other portions of the cell, when looked at under the microscope after treatment with the dyes (Fig. 5). Just before the cell divides, the chromatin breaks up into separate bits called *chromosomes,* which means "color bodies." Each chromosome splits lengthwise into two pieces, and one of each pair goes into one of

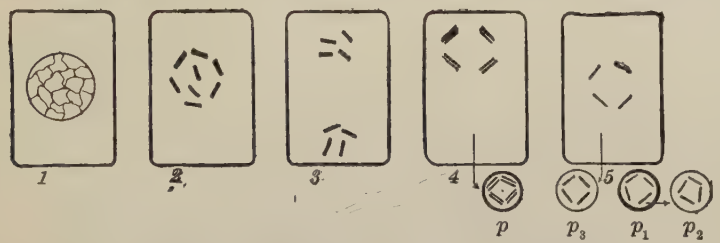

FIG. 6.* THE FORMATION OF AN EGG CELL

The chromatin material of the nucleus network, *1*, arranges itself into a definite number of chromosomes, *2*, which divide up into two equal groups, *3*. Half of the chromosomes are pushed out of the cell, *4*, and form the first polar body, *p*. The chromosomes of the polar body, as well as the chromosomes remaining in the mother cell, split lengthwise, and half of each chromosome is pushed out, *5*. The first polar body thus becomes two bodies, p_1 and p_2, and the mother cell puts out a third polar body, p_3, retaining half the original number of chromosomes. This cell is now the egg cell.

the two new cells (see Fig. 5). In this way each cell as it divides distributes one half of its chromosomes to each of the two daughter cells. Thus it comes about that each cell has exactly the same number of chromosomes as the other cells in the body.

Formation of germ cells and zygotes. — This process of nuclear division goes on as the developing organism continues to grow by the production of new cells. In the formation of germ cells, however, the chromosomes divide in a different way. In a cell that is to form an egg cell half of the chromosomes separate out; the remaining chromosomes then split lengthwise (see Fig. 6). As a result of these two divisions, which usually follow in rapid succession†, the egg cell contains *one fourth of the chromatin* present in the cell from which it was formed, and only *one half of the usual number* of chromosomes. The division which separates the chromosomes into two groups is called the *reduction division,* since it reduces the *number* of chromosomes.

* From *Elementary Biology* by BENJAMIN C. GRUENBERG. Ginn & Co. 1919.

† It is believed that in some cases the splitting of the chromosomes takes place *before* the separation into the reduced numbers.

In the formation of sperm cells also a reduction division occurs. But instead of producing polar bodies the sperm mother-cell forms *four sperm cells.*

The polar bodies formed by the maturing of the egg cell die and disappear.

When a sperm cell unites with an egg cell in fertilization, the resulting zygote contains the full number of chromosomes, half derived from the male parent and half from the female parent. From all the evidence that is now available it would seem that the chromosomes are the features of the germ cell which bear whatever it is that determines the development of the characters that distinguish the individual from others of the same species, and at the same time those characters that identify it with others of the same species.

XXV. MENTAL TESTS

Next to the difficult and rarely attained task of knowing ourselves, we have that of knowing the children whose guidance and management are in our hands. That no two children are exactly alike has long been known empirically, and is indeed the very foundation of our problem — that is, there would be no problem if all were identical.

Efforts to measure the degrees of the many qualities that make up personality have been made from time to time but it is only within a generation that a systematic working out of "tests" has been pursued consistently on an extensive scale. The principles of the classical *Binet tests*, the method by which they were developed, the uses to which they are put, and their limitations are given in the words of Terman, who has himself contributed notably both to the improvement and extension of the Binet tests and to their practical application to educational problems, especially for American children.

It ought to be emphasized for the extremely skeptical as well as for the extremely enthusiastic, that no test can be considered automatic and infallible. The best tests, under the most favorable conditions, are but aids to a better understanding of the individual and never substitutes for intelligence on the part of the teacher, parent, social worker, or judge. The physician who makes use of the various instruments that have been devised in recent years to give him more precise knowledge regarding the condition of his patients is not relieved by these instruments of the responsibility of using his senses and his judgment. Neither do the various kinds of tests exempt us from seeing what is visible in the conduct and performance of the children or from interpreting what we see.

If we recognize the nature and the limitations of the tests, we should be able to get a great deal of help from them; if we look upon them as mechanical substitutes for insight and sympathy, they may be sources of danger.

The tests developed in connection with school problems tended naturally to stress those abilities that the school traditionally employs and cultivates, namely, the abilities connected with the use of language and symbols. Many children have had difficulty precisely because language and abstractions do not grip them. Bronner describes

briefly various tests that have to do with concrete material and with pictorial representation. In recent years, more and more of such tests have been developed, especially for use with very young children, illiterates, and foreigners unfamiliar with a given language.

There has been a very elaborate development of group tests, analogous to the celebrated *Army tests*. The latter, in spite of many limitations, were undoubtedly of tremendous value in the rapid classification of large numbers for immediate assignment to duty. The progressive refinement and specialization of tests have made possible substantial improvement in the classification of children for the purposes of school administration and in the guidance of individual children for purposes of better selection of studies or schools.

The fact that the individual does not always make the best use of his native ability rests in part upon the ability remaining undiscovered; here a variety of experiences, supplemented by a great variety of tests, would be helpful. In part, however, the difficulty may be with his physical state or with emotional habits, restraints, hostilities, inhibitions. Here again a thorough study of the individual from both the physical and the psychic aspects should be of value. Standard tests for emotional factors are not likely to become available, as pointed out on page 290; nevertheless, Downey and others have evolved very ingenious methods for bringing to the surface certain phases of the "temperament" and considerable progress may be expected along these lines.

THE USES OF INTELLIGENCE TESTS*

Lewis M. Terman

[Must recognize individual variation.] — There are many grades of intelligence, ranging from idiocy on the one hand to genius on the other. Among children classed as normal, vast individual differences have been found to exist in original mental endowment, differences which affect profoundly the capacity to profit from school instruction. We are beginning to realize that the school must take into account, more seriously than it has yet done, the existence and significance of these differences in endowment. Instead of wasting energy in the vain attempt to hold mentally slow and defective children up to a level of progress which is normal to the average child, it will be wiser to take account of the inequalities of children in original endowment and to

* From *The Measurement of Intelligence*, Chapter I, "The Uses of Intelligence Tests"; Chapter III, "Description of the Binet-Simon Method"; Chapter IV, "Nature of the Stanford Revision and Extension." Copyright by L. M. Terman. By permission of, and by arrangement with, Houghton Mifflin Company, the authorized publishers. 1916.

differentiate the course of study in such a way that each child will be allowed to progress at the rate which is normal to him, whether that rate be rapid or slow.

[**Danger of failure.**] — While we cannot hold all children to the same standard of school progress, we can at least prevent the kind of retardation which involves failure and the repetition of a school grade. It is well enough recognized that children do not enter with very much zest upon school work in which they have once failed. Failure crushes self-confidence and destroys the spirit of work. It is a sad fact that a large proportion of children in the schools are acquiring the habit of failure. The remedy, of course, is to measure out the work for each child in proportion to his mental ability.[1]

[**Study of our material.**] — Before an engineer constructs a railroad bridge or trestle, he studies the materials to be used, and learns by means of tests exactly the amount of strain per unit of size his materials will be able to withstand. He does not work empirically, and count upon patching up the mistakes which may later appear under the stress of actual use. The educational engineer should emulate this example. Tests and forethought must take the place of failure and patchwork. Our efforts have been too long directed by "trial and error." It is time to leave off guessing and to acquire a scientific knowledge of the material with which we have to deal. When instruction must be repeated, it means that the school, as well as the pupil, has failed. Every child who fails in his school work or is in danger of failing should be given a mental examination. The examination takes less than one hour, and the result will contribute more to a real understanding of the case than anything else that could be done. It is necessary to determine whether a given child is unsuccessful in school because of poor native ability, or because of poor instruction, lack of interest, or some other removable cause. . . .

Essential nature of the Binet scale. — The Binet scale is made up of an extended series of tests in the nature of "stunts" or problems, success in which demands the exercise of intelligence. As left by Binet, the scale consists of 54 tests, so graded in difficulty that the easiest lie well within the range of normal three-year-old children, while the hardest tax the intelligence of the average adult. The problems are designed primarily to test native intelligence, not school knowledge or home training. They try to answer the question, "How intelligent is this child?" How much the child has learned is of significance only in so far as it throws light on his ability to learn more.

Binet fully appreciated the fact that intelligence is not homogeneous, that it has many aspects, and that no one kind of test will display it adequately. He therefore assembled for his intelligence scale tests of many different types, some of them designed to display differences of memory, others differences in power to reason, ability to compare, power of comprehension, time orientation, facility in the use of number concepts, power to combine ideas into a meaningful whole, the maturity of apperception, wealth of ideas, knowledge of common objects, etc.

[1] See "Success and Failure," p. 103.

How the scale was derived. — The tests were arranged in order of difficulty, as found by trying them upon some 200 normal children of different ages from 3 to 15 years. It was found, for illustration, that a certain test was passed by only a very small proportion of the younger children, say the five-year-olds, and that the number passing this test increased rapidly in the succeeding years until by the age of 7 or 8 years, let us say, practically all the children were successful. If, in our supposed case, the test was passed by about two thirds to three fourths of the normal children aged 7 years, it was considered by Binet a test of seven-year intelligence. In like manner, a test passed by 65 to 75 per cent of the normal nine-year-olds was considered a test of nine-year intelligence, and so on. By trying out many different tests in this way it was possible to secure five tests to represent each age from 3 to 10 years (excepting age 4, which has only four tests), five for age 12, five for 15, and five for adults, making 54 tests in all. . . .

How the scale is used. — We can judge the intelligence of a given individual by comparison with the intellectual performance of normal children of different ages. In order to make the comparison it is only necessary to begin the examination of the subject at a point in the scale where all the tests are passed successfully, and to continue up the scale until no more successes are possible. Then we compare our subject's performances with the standard for normal children of the same age, and note the amount of acceleration or retardation. . . .

The question naturally suggests itself why Binet should have been successful in a field where previous efforts had been for the most part futile. The answer to this question is found in three essential differences between Binet's method and those formerly employed.

The use of age standards. — Binet was the first to utilize the idea of age standards, or norms, in the measurement of intelligence. It will be understood, of course, that Binet did not set out to invent tests of ten-year intelligence, six-year intelligence, etc. Instead, as already explained, he began with a series of tests ranging from very easy to very difficult, and by trying these tests on children of different ages and noting the percentages of successes in the various years, he was able to locate them (approximately) in the years where they belonged.

This plan has the great advantage of giving us standards which are easily grasped. To say, for illustration, that a given subject has a grade of intelligence equal to that of the average child of 8 years is a statement whose general import does not need to be explained. Previous investigators had worked with subjects the degree of whose intelligence was unknown, and with tests the difficulty of which was equally unknown. An immense amount of ingenuity was spent in devising tests which were used in such a way as to preclude any very meaningful interpretation of the responses.

The Binet method enables us to characterize the intelligence of a child in a far more definite way than had hitherto been possible. . . Every one knows what is meant by the term eight-year mentality, four-year mentality, etc.,

even if he is not able to define these grades of intelligence in psychological terms; and by ascertaining experimentally what intellectual tasks children of different ages can perform, we are, of course, able to make our age standards as definite as we please. . . .

The kind of mental functions brought into play. — In the second place, the Binet tests differ from most of the earlier attempts in that they are designed to test the higher and more complex mental processes, instead of the simpler and more elementary ones. Hence they set problems for the reasoning powers and ingenuity, provoke judgments about abstract matters, etc., instead of attempting to measure sensory discrimination, mere retentiveness, rapidity of reaction, and the like. Psychologists had generally considered the higher processes too complex to be measured directly, and accordingly sought to get at them indirectly by correlating supposed intelligence with simpler processes which could readily be measured, such as reaction time, rapidity of tapping, discrimination of tones and colors, etc. While they were disputing over their contradictory findings in this line of exploration, Binet went directly to the point and succeeded where they had failed.

It is now generally admitted by psychologists that higher intelligence is little concerned in such elementary processes as those mentioned above. Many of the animals have keen sensory discrimination. Feeble-minded children, unless of very low grade, do not differ very markedly from normal children in sensitivity of the skin, visual acuity, simple reaction time, type of imagery, etc. But in power of comprehension, abstraction, and ability to direct thought, in the nature of the associative processes, in amount of information possessed, and in spontaneity of attention, they differ enormously.

Binet would test "general intelligence." — Finally, Binet's success was largely due to his abandonment of the older "faculty psychology" which, far from being defunct, had really given direction to most of the earlier work with mental tests. Where others had attempted to measure memory, attention, sense discrimination, etc., as separate faculties or functions, Binet undertook to ascertain the *general level* of intelligence. Others had thought the task easier of accomplishment by measuring each division or aspect of intelligence separately, and summating the results. Binet, too, began in this way, and it was only after years of experimentation by the usual methods that he finally broke away from them and undertook, so to speak, to triangulate the height of his tower without first getting the dimensions of the individual stones which made it up. . . .

Guiding principles in making tests. — In choosing his tests Binet was guided by the conception of intelligence which emphasizes three characteristics of the thought process: (1) Its tendency to take and maintain a definite direction; (2) the capacity to make adaptations for the purpose of attaining a desired end; and (3) the power of autocriticism. Tests were devised which would presumably bring into play the various mental processes thought to be concerned in intelligence, and then these tests were tried out on normal children of different ages. If the percentage of passes for a given test increased but

little or not at all in going from younger to older children this test was discarded. On the other hand, if the proportion of passes increased rapidly with age, and if children of a given age, who on other grounds were known to be bright, passed more frequently than children of the same age who were known to be dull, then the test was judged a satisfactory test of intelligence. As we have shown elsewhere, practically all of Binet's tests fulfill these requirements reasonably well, a fact which bears eloquent testimony to the keen psychological insight of their author.

In arranging the tests into a system Binet's guiding principle was to find an arrangement of the tests which would cause an average child of any given age to test "at age"; that is, the average five-year-old must show a mental age of 5 years, the average eight-year-old a mental age of 8 years, etc. In order to secure this result Binet found that his data seemed to require the location of an individual test in that year where it was passed by about two thirds to three fourths of unselected children.

It was in the assembling of the tests that the most serious faults of the scale had their origin. Further investigation has shown that a great many of the tests were misplaced as much as one year, and several of them two years. On the whole, the scale as Binet left it was decidedly too easy in the lower ranges, and too difficult in the upper. As a result, the average child of 5 years was caused to test at not far from 6 years, the average child of 12 years not far from 11. In the Stanford revision an effort has been made to correct this fault, along with certain other generally recognized imperfections.

Some limitations of the Binet tests. — The Binet tests have often been criticized for their unfitness to perform certain services which in reality they were never meant to render. This is unfair. We cannot make a just evaluation of the scale without bearing in mind its avowed limitations. For example, the scale does not pretend to measure the entire mentality of the subject, but only *general intelligence*. There is no pretense of testing the emotions or the will beyond the extent to which these naturally display themselves in the tests of intelligence. The scale was not designed as a tool for the analysis of those emotional or volitional aberrations which are concerned in such mental disorders as hysteria, insanity, etc. Those conditions do not present a progressive reduction of intelligence to the infantile level, and in most of them other factors besides intelligence play an important rôle. Moreover, even in the normal individual, the fruitfulness of intelligence, the direction in which it shall be applied, and its methods of work are to a certain extent determined by the extraneous factors of emotion and volition.

It should, nevertheless, be pointed out that defects of intelligence, in a large majority of cases, also involve disturbances of the emotional and volitional functions. We do not expect to find perfectly normal emotions or will power of average strength coupled with marked intellectual deficiency, and as a matter of fact such a combination is rare indeed. In the course of an examination with the Binet tests, the experienced clinical psychologist is able to gain

considerable insight into the subject's emotional and volitional equipment, even though the method was designed primarily for another purpose.

[Does not reveal special talents.] — A second misunderstanding can be avoided by remembering that the Binet scale does not pretend to bring to light the idiosyncrasies of special talent, but only to measure the general level of intelligence. It cannot be used for the discovery of exceptional ability in drawing, painting, music, mathematics, oratory, salesmanship, etc., because no effort is made to explore the processes underlying these abilities. It can, therefore, never serve as a *detailed chart* for the vocational guidance of children, telling us which will succeed in business, which in art, which in medicine, etc. It is not a new kind of phrenology. At the same time, *it is capable of bounding roughly the vocational territory in which an individual's intelligence will probably permit success, nothing else preventing.*[1]

In the third place, it must not be supposed that the scale can be used as a complete pedagogical guide. Although intelligence tests furnish data of the greatest significance for pedagogical procedure, they do not suggest the appropriate educational methods in detail. These will have to be worked out in a practical way for the various grades of intelligence, and at great cost of labor and patience.

[Tests not complete diagnoses.] — Finally, in arriving at an estimate of a subject's grade of intelligence and his susceptibility to training, it would be a mistake to ignore the data obtainable from other sources. No competent psychologist, however ardent a supporter of the Binet method he might be, would recommend such a policy. Those who accept the method as all-sufficient are as much in error as those who consider it as no more important than any one of a dozen other approaches. Standardized tests have already become and will remain by far the most reliable single method for grading intelligence, but the results they furnish will always need to be interpreted in the light of supplementary information regarding the subject's personal history, including medical record, accidents, play habits, industrial efficiency, social and moral traits, school success, home environment, etc. Without question, however, the improved Binet tests will contribute more than all other data combined to the end of enabling us to forecast a child's possibilities of future improvement, and this is the information which will aid most in the proper direction of his education.

The Stanford revision and extension. — Although the Binet scale quickly demonstrated its value as an instrument for the classification of mentally retarded and otherwise exceptional children, it had, nevertheless, several imperfections which greatly limited its usefulness. . . .

1. In young subjects the higher grades of mental deficiency were overlooked, because the scale caused such subjects to test only a little below normal.

2. The proportion of feeble-mindedness among adult subjects was greatly overestimated, because subjects who were really of the 12- or 13-year mental level could only earn a mental age of about 11 years.

[1] Compare "Intelligence and Vocation," p. 90.

3. Confusion resulted in efforts to trace the mental growth of either feeble-minded or normal children. . . .

It was for the purpose of correcting these and certain other faults that the Stanford investigation was planned.

The Stanford revision is the result of several years of work, and involved the examination of approximately 2300 subjects, including 1700 normal children, 200 defective and superior children, and more than 400 adults. . . .

The most important effect of the revision is to reduce the mental ages secured in the lower ranges of the scale, and to raise considerably the mental ages above 10 or 11 years. . . .

Retests of children by the Stanford revision have been found to yield intelligence quotients almost identical with those secured from two to four years earlier by the same tests.[1]

METHODS OF DIAGNOSIS*

Augusta F. Bronner

[**Tests with concrete material.**] — For determining an individual's success in solving problems involving concrete material many tests are now in use. The simplest of these are the so-called Form Boards, where the subject has only to distinguish between one form and another; there are the Dearborn and the Healy-Fernald construction tests; the so-called Puzzle Boxes; some of the Knox tests; the Stenquist test for mechanical ability; and many others for which norms are being established and which either are or soon will be ready for general use.

Such performance tests with concrete material afford a means of evaluating the individual's ability in perception of form and form relationships. Further, they enable one to gauge the subject's method of attacking a problem; for instance, the test may be solved by random trial-and-error method, or by procedure which the individual plans. One of the most illuminating features is noting whether the subject profits by experience, whether he avoids or repeats impossibilities and unsuccessful efforts. The improvement made on later retrials gives an indication of learning ability in relation to a particular kind of situation. Any differences which may be found in readiness of learning, where the problems are presented thus concretely as opposed to problems presented in abstract form, become very significant from the standpoint of educational method. . . .

[**Sizing up a situation.**] — The ability to size up a situation and to grasp the general meaning of it is exceedingly important in all activities of life, beginning earlier than the school age and extending long past it. Here is involved the relation of one part to another; perception in the light of something which

[1] See footnote, p. 92.

* From *Psychology of Special Abilities and Disabilities*, Chapter II; Chapter III, "Differential Diagnosis." Little, Brown and Company. 1923.

has gone before. Tests are possible for the apperception of ideas expressed in pictorial form, as in the Healy Pictorial Completion test, and of ideas expressed in words, as in the Ebbinghaus Mutilated Text. The work of Trabue in arranging a scale for the determination of apperception of ideas as expressed through the medium of written language will no doubt have a great value in such places as it is applicable.

[**The kinds and degrees of memory.**] — The importance of memory in all the activities of life is so obvious that we need not dwell upon it. It is less commonly recognized, however, that memory itself is not a functional unit; it would be more accurate to speak of "memories," since the ability to remember in one field and by one avenue of approach is not always closely correlated with memory power in other fields. On the basis of actual study of individuals, it is frequently found that good memory for rote material does not necessarily mean equally good memory for logical material. Even in rote memory there are often specializations, for the span for auditory presentations may be quite different from that for visual presentations. . . . We must distinguish, too, between tests for immediate and remote memory, the former, of course, implying a reproduction that immediately follows the stimulus, whatever that may be, and the latter a reproduction that follows after intervals that vary according to the wish of the experimenter. . . .

[**Free and controlled association.**] — Other tests are especially adapted to study processes of association, either the control of old associations or the ability to form new ones. For the former there is the free association test, in which one association calls up another without any controlled relationship, or the well known Kent-Rosanoff test in which the subject reacts by giving the first word which the stimulus-word suggests. In the Woodworth-Wells association tests a stimulus is given, to which the subject reacts according to some principle which has been told him; he gives either the opposite of a word or a superordinate, or a word which stands in some other particular relationship to the stimulus word. These tests have been widely used in the study of various psychoses, but are important in all studies of mentality, for they give a clue to the speed as well as to the accuracy of the association processes.

[**Reasoning.**] — As for reasoning ability, here again we must remember we are not dealing with a unitary process. Reasoning is a complex activity in which a number of mental processes are involved; thus, the ability to form mental representations, to analyze, to compare, to form judgments, all are elements. Likewise one may be able to reason very well in certain realms and fail altogether in others. This is true, aside from the question of having acquired such knowledge or data as are necessary in order to reason at all. There are certain tests for the purpose of studying the separate elements which enter into the reasoning processes and still others intended to test reasoning as a whole in its relation to diverse situations. Some of the Binet tests deal with reasoning; Bonser[1] has offered a number of tests, all of which deal with

[1] Bonser, F. G. — *Teachers College Contributions to Education*, "Reasoning Ability of Children," 37. 1910.

reasoning, though the material itself is quite varied. Terman's tests for ingenuity, incorporated in his intelligence scale, require reasoning. . . .

[**Motor control.**] — For studying the powers of psycho-motor control there are the tests requiring apparatus, such as the "3-hole test," where the task is to hold a stylus without touching the sides of the hole in which it is inserted; or, there are simpler tests, such as drawing a line between two given lines without touching the edges, or placing a dot in half-inch squares as rapidly as possible without touching the lines or missing the squares. These tests for psycho-motor control, or motor coördination, may be supplemented by other tests commonly used by neurologists.

[**Mental control.**] — Mental control may be evaluated by results achieved on quite a varied group of tests, including the association tests, already mentioned, and the Kraepelin Continuous Addition and Subtraction tests, where a certain number must be added or subtracted continuously from some given starting point. Here, both speed and accuracy are significant. Some of the Rossolimo tests, such as naming the months backward, or obeying several commands simultaneously, are designed for this same purpose. . . .

Incidental to all testing, there is opportunity for observing power of attention and distractibility, qualities which can be gauged also by specific tests for this purpose. Characteristic traits such as persistence and determination, as opposed to easy discouragement, likewise may be noted.

[**The emotions.**] — Concerning the emotions, the affective side of life, few tests are as yet in use, though most students of behavior appreciate the need for them. Indeed, it is quite doubtful if tests will ever offer an effective means of studying these complex aspects of mentality. The situations which in real life call the emotions into play are not easily duplicated in the laboratory, and artificial stimuli for arousing them necessarily would result in totally different reactions. How can one study experimentally love and hate as they affect behavior? Or what can tests reveal concerning the formation and results of antisocial grudges? Judgment as to defects in emotional life, as well as in regard to will, must be based very largely if not altogether upon the individual's social reactions. Recognition of individual differences in strength of the emotions, in powers of inhibition and self-control, will probably always rest mainly upon evidence gleaned from general behavior and incidental reactions rather than upon results obtained by use of one psychological test or series of tests. . . .

[**Special abilities.**] — Differential diagnosis of special ability hardly needs discussion since any unusual capacity in a special field is a positive fact needing no further interpretation. In both normal individuals and defectives it is necessary to test the different mental functions in order that where special abilities exist they may be brought to light. The only generalization that needs emphasis is that in order to discover special gifts there must be a search for them. That is, a wide enough range of tests must be used to give each individual a chance to display his capacities. Once discovered, there should follow a proper evaluation of abilities, as is not commonly done, for it is the

part of common sense to utilize for the benefit of the individual and society such gifts as exist.

[Special defects.] — Differential diagnosis of special defects is a much more complex problem, since, in general, negative results may be due to exceedingly varied causes. Irregularity in test results, which, on superficial view, might seem indicative of special defect, may, for example, be due instead to *poor physical conditions*. This necessitates a physical examination in the case of every individual who is studied. Physical disability preventing the best achievement of which one is capable may be reflected in work in the laboratory where mental examinations are made, in the schoolroom, or in the shop.

[Physical factor.] — Interest and zest for mental pursuits are sometimes maintained in spite of poor physical background, we know; such studies as those of Gulick and Ayres[1] have shown this. Nevertheless, it is not true in all cases. We ourselves know instances where, with improved health, the reports on conduct and school standing, and also the industrial record were greatly changed. We know, too, cases where findings on tests were altogether different after the child had been built up physically. Anemia, malnutrition, or debility following illness is sometimes the explanation of mental dullness which might be confused with innate defect. In all such cases it seems only fair to give the individual the benefit of the doubt. He needs, in any case, all the physical help which can be given him, and unless the mental disability is so extreme as to preclude any possibility of poor physical conditions as an explanation, the final diagnosis should be held in abeyance. To be remembered always, particularly with young children, are the recently studied disturbances of function of the glands of internal secretion. Both we and many others have seen results nothing short of marvelous through treatment of these troubles in children who appeared exceedingly dull in some aspect of their mental life. This makes us all the more conscious of the contributions that future research may bring forth concerning relationships between physical and mental conditions.

THE CENTRAL IDEA OF THE WILL-TEMPERAMENT*

June E. Downey

[A view of character.] — Character may be thought of as the organization of native and acquired traits affected through inner subjective factors and outer objective ones. Character, in this sense, will be influenced by intelligence or by power to reflect upon and discover the significance of experiences and by the capacity to form ideals; it will also be determined by sensitiveness to social control; and it will be modified by external pressure and by the acquisition of specific habits through pressure of the environment.

[1] Gulick and Ayres, *Medical Inspection of Schools*, Chapter XII. Russell Sage Foundation, 1908.

* From *The Will-Temperament and Its Testing*, Chapter IV; Chapter V, "The Will-Temperament Tests." World Book Company, Yonkers-on-Hudson, N.Y. (1923) 1924.

Character is not, then, a sum total of native tendencies; it is a product built upon these tendencies; it is the *direction* in which native tendencies are turned. It follows that *character* is not subject to measurement through tests in precisely the same way as native tendencies are, although one may take a cross section of it at any particular moment.

The will-temperament determines the form assumed by character, although it does not determine its content.

Similarly, the will temperament determines the *use* that will be made of general intelligence, although it does not determine the degree of intelligence. Explosive tendencies which may speed an individual of great ability on to success may ruin a less intelligent man. Inhibitions may nullify genius; they may protect a moron. . . .

[**The dynamic aspect of temperament.**] — Authorities on human nature have frequently stressed the level of activity or the energy output as a fundamental phase of personality. James did this in his description of the varieties of the explosive and of the obstructed wills; and Davenport did a somewhat similar thing in his account of the hyperkinetic, or overactive, and of the hypokinetic, or underactive, temperaments.

In an experimental test, the general level of activity and its mode of functioning might be determined in a variety of ways. After deciding upon the features in the activity pattern which seem most significant in the analysis of individual differences, the investigator could utilize a number of different types of reaction in order to throw these features into the foreground for study.

The phases of the dynamic pattern that seem most essential to the author include: (1) those of speed and fluidity of reaction; (2) those of forcefulness and decisiveness of reaction; (3) those of carefulness and persistence of reaction.

Tests of these three phases of activity give us three groups of tests that may be briefly described as speed tests, tests for aggressiveness, and tests of carefulness and persistence.

The first group includes four specific tests: Speed of movement, freedom from load, flexibility, speed of decision.

The second group is composed of tests for: Motor impulsion, reaction to contradiction, resistance to opposition, finality of judgment.

Tests for the four following traits make up the third group: Motor inhibition, interest in detail, coördination of impulses, volitional perseveration.

All but three of the tests represent writing reactions.

XXVI. THE EXCEPTIONAL CHILD

We are obliged by the nature of our institutions to treat large numbers of children as though they were substantially identical. We "believe" in some sort of equality; we make rules and regulations for the governance of all alike. We dislike exceptions.

We are obliged by the nature of the human organism, as we come to know it more fully, to treat each individual as a unique personality. It is perhaps not helpful to say that every child is "exceptional"; but it is helpful to recognize that no two children are identical.

We are obliged by the tendency of the human mind to generalize and to form classifications, to group all the children together; and we have thus built up our elaborate institutions and rules of discipline. When we discover that individuals differ, we establish whole classes of "exceptional children." Progress in our knowledge and control will consist, here as in other fields of human advance, of further refinements and discriminations. We subdivide our class *feeble-minded* into several grades; we still speak of *delinquents*, but we split them into smaller groups.

As Gesell points out, extreme departure from the "normal" constitutes a handicap; but educational and other special treatment may either do a great deal to compensate or rectify the handicap, or social methods must be adopted for protecting the individual or the community. The distinction is further made between native or inherent qualities that call for special treatment and the results of conditions, disease, or accident. The disregard of exceptional ability may also result in handicap, as we know from the many brilliant boys and girls who had been permitted to acquire wasteful and antisocial habits through school requirements that never challenged their ability and self-esteem.

The early recognition of physical or mental defect, or of an exceptional talent or capacity, is found to be of great value both for a better understanding of the child's conduct and difficulties, and for an easier adjustment of the regimen to the child's needs.

The problem of delinquency is most helpfully approached by separating the child's conduct from our own preconceptions of wickedness or sinfulness. This does not mean that we have to tolerate misconduct

because the child comes by it "naturally," or that we must accept all conduct as equally desirable. It means that we can better understand and help the child if we seek, as Groves suggests, the sources of his difficulties in his earlier experience, or in the defects of his relationships with others. In too many cases the difficulties that lead to delinquency remain unsuspected and undiscovered until antisocial conduct and its accompanying attitudes have become habitual.

There is in general a disadvantage to the child in having him become aware of his queerness, his distinctions from others, whether these are themselves desirable, like special talent or general ability, or undesirable, like a physical or mental deficiency. On the other hand, any considerable departure from the usual should not be ignored. The problem is one of accepting the exceptional features as normal, of recognizing not only the usual variations, but also the regular presence of a certain proportion of blind or crippled, of tone deaf, of mathematical genius, and so on. This attitude comes of course more easily to the teacher or to the social worker, both because he deals with large numbers and because it concerns the child of another, and not his own. Yet from the point of view of the parent, also, a recognition of the normal occurrence of extreme departures should be helpful. The worst of being "exceptional" becomes accentuated by hiding from the facts or by ignoring them. We can get suitable service and assistance only if we face reality.

HANDICAPPED SCHOOL CHILDREN*

Arnold Gesell

[Handicaps a public problem.] — When the term "handicapped children" is used, we usually think of school children. We associate the term with those children who, by reason of physical or mental defect, are unable to profit from ordinary instruction and therefore need special educational or hygienic adjustments in their behalf. The problem of handicapped school children is indeed a large one, and the responsibility of the elementary-school system in relation to the problem rests upon broad legal and social sanctions. . . .

A complete classification of handicapped children would include all those children who, by virtue of exceptional circumstances or of inherent or acquired constitution, deviate so much from the normal as to cause a special status to arise with reference to their educational and social treatment. Sometimes the courts determine when the special status exists; sometimes it is a matter of common knowledge; sometimes it is only recognized by experts; but, in one

* From *The Pre-School Child*, Chapter VI. By permission of, and by arrangement with, Houghton Mifflin Company, the authorized publishers. 1923.

way or another, the handicapped child generally comes within the purview of the public school system and educational law.

A comprehensive list of the consequential forms of handicap would include those of environmental character, abnormal home and economic conditions, such as illegitimate parentage, dependency, neglect, and injudicious employment; and a large group of constitutional and acquired handicaps affecting physique, sensation, motor capacity, social conduct, and mentality. We shall consider mainly the children with constitutional and acquired handicaps.

[The measure of handicap.] — It is, of course, impossible to set precise limits to such a term as "handicap." The scope of our discussion, however, is indicated by the following quotation from a recent Connecticut statute: "The term *educationally exceptional children* shall include all children over four and under sixteen years of age, who, because of mental or physical handicap, are incapable of receiving proper benefit from ordinary instruction, and who for their own and the social welfare need special educational provisions."

It will be noted that this statutory definition partly recognizes the preschool as well as the school aspect of the problem, by including children of ages as low as four or five.

On the basis of this definition I would estimate that about one public-school pupil out of twenty-five may be regarded as exceptional. From the standpoint of child welfare and school administration, the distribution of such exceptional children per 1000 of all children of compulsory school age would be approximately as follows:

Blind and partially sighted	3
Deaf and semideaf	2
Crippled	2
Physically defective	12
Psychopathic	2
Delinquent	4
Speech defective	3
Mentally deficient	12
Total number per 1000	40

If we give the term "exceptional" a still wider connotation, we would include in the above list two further groups of children: (*a*) those not classified as feeble-minded, but who are extremely dull or nonacademic; and (*b*) those who are unusually gifted or endowed with superior intelligence. These two groups combined would bring the total up to 50 per 1000. They are by no means unimportant from the standpoint of social and educational policy.

No one of the above groups can be limited with absolute precision. A speech defect, for example, may be so mild as to be negligible or so severe as to constitute a real handicap. The figures we have given are intended to

include school children whose defect or deviation is so serious as to call for special consideration, even in a nonutopian state.

[**Enlarged school responsibility.**] — A generation ago the exceptional child was not conceived as being a legitimate public school problem. It was assumed, it is even now sometimes argued, that the business of the schools is to teach the statutory subjects — reading, writing, and arithmetic; but the principle of compulsory education in a democratic country has carried with it implications which have brought about an altogether different point of view. A policy of exclusion would have led to only confusion and injustice. The public school in progressive communities is steadily shouldering the whole problem of defective and handicapped pupils, and one can find examples of special tax-supported provisions for every type of exceptional school child.

[**Provisions for the blind.**] — The present status and possibilities of these provisions can be briefly indicated for each of the eight classes of children referred to in the preceding classification.

The number of pupils in schools and classes for the blind in 1918 was 5386. About nine per cent of these were receiving their education in ten cities where classes for the blind are part of the public school system. The first city school classes for the blind were inaugurated by New York City and Cleveland in the year 1909. One or more classes were maintained in 1921, by Chicago, Detroit, Jersey City, Newark, Cincinnati, Mansfield, Toledo, and Milwaukee. It is very significant that in a short period of twelve years such a large proportion of blind children should have been reached by the public schools; and that such states as Pennsylvania, Ohio, Minnesota, and New Jersey should have passed laws providing liberal State aid for the education of blind children in public school classes.

Cleveland has been a pioneer in having the blind taught in classes with seeing children. The special teachers for the blind children are tutors for the group, and segregation is reduced as much as possible. Since the blind must find a place in life beside the seeing, this Cleveland plan has much to commend it. This same consideration is a reason for further fostering public school provisions. It is not impossible that State departments of education and commissions for the blind will gradually develop an administrative technique, through supervising experts, visiting instructors, and training centers, whereby an increasing number of blind children from small communities can be educated under public school auspices. The fact that the per-pupil cost of education in a public school class for the blind is less than half of the per-pupil cost in a public institution will fortunately not act as a deterrent.

The education of the near blind or partially sighted is a problem which falls peculiarly within the scope of the public school. Surely it is not a problem to be solved by erecting State institutions, or by excluding the child from school attendance. The task is not a small one. . . . Special sight-conservation classes for partially sighted children are being established in several of the larger cities of the country, and with very beneficial results. These classes

should be fostered, but here again the special class has its limitations. More flexible provisions, more abundant materials. including large-type texts, can be created to reach the individual child who, in spite of his visual handicap, must be maintained in a regular school.

Deaf and semideaf. — The drift toward public school care, in the case of deaf children, has been even more marked than in the case of the blind. This is all the more remarkable when it is recalled that the education of the deaf is one of the most difficult of pedagogical tasks. The care of the deaf, like that of the blind, should so far as possible be deinstitutionalized. The deaf children should, when practical, grow up in contact with the hearing child. Such contact can be supplied in the public school. Moreover, public school provisions for the deaf encourage the beginning of the oral method at the tender but favorable age of three or four, when families are naturally reluctant to commit to a distant institution. Several states now foster the extension of public school classes by special grants of state aid. This fortunately is an administratively economical as well as a humane policy. . . .

Crippled children. — Chicago, in 1899, established the first public school for crippled children in the United States. It now maintains under the Board of Education a permanent school building for the exclusive use of crippled children. . . .

The provisions for crippled school children now to be found in the larger cities often include school lunches and transportation. Sometimes the transportation is to regular classes. The per-capita cost is not prohibitive, being less than that for the education of the blind and deaf. . . . The solution of the problem, however, involves much more than the creation of special classes and provisions of transportation. Many crippled children need medical care over long periods of time. This care can be rendered best by a hospital type of school, which should, however, maintain close relations with the public system of education. Here again it is desirable to avoid, so far as possible, unnecessary segregation or any tendency that would make the cripple self-conscious and dependent. The purely educational and vocational part of the task is one which the public school could undertake, even in sparsely settled communities.

Physically defective. — This group is a difficult one to define. We include in it all children who are so seriously handicapped by malnutrition, cardiac defect, or chronic disease as to be urgently in need of special hygienic arrangements in school. To place the number of such children at over one per cent is conservative. The number of under-nourished children in an ordinary school population has been placed as high as from fifteen to twenty per cent; and as many (to a large extent the same children) are considered to be predisposed to tuberculosis. Medical inspection, health instruction, physical education, nutrition classes, school lunches, home visitation, etc., must be counted upon to reach this large group of inferior children.

Open-air rooms and hospital schools are, however, necessary for the adequate treatment of many children. The first open-air schoolroom in the United States was established in Providence in 1908. Since then such rooms

and open-window classes have spread with great rapidity over the country, and can now be numbered by the score. New York alone has in the neighborhood of one hundred open-air classes. Vacation camps and summer outdoor schools for physically defective children will undoubtedly be further developed as a legitimate part of public school work. The welfare of the physically defective child in smaller communities depends upon a close coördination of public-health, medical, and educational control. Much can still be done for him by special adaptations and supervision within the regular school.

Psychopathic. — Although mental or nervous disability constitutes one of the heaviest burdens of society, almost nothing has been done by the public schools in the way of preventive mental hygiene.

In 1920 there were 232,680 patients with mental disease, 14,937 epileptics and 1971 alcoholic and drug addicts actually in institutions in the United States. A considerable proportion of all cases of mental and nervous disease are conditioned, if not caused, by factors which operate in childhood and youth. There are no convenient or accurate methods of diagnosis which will reveal those children who are harboring a latent insanity or developing the basis for an insanity. Ordinary special class methods will have decided limitations in this field, but careful observation and guidance of pupils with psychopathic tendencies has, on a small scale, been successfully inaugurated in the New York public schools.

The first step in the development of constructive school measures lies in recognizing pupils who show serious defects in personality make-up, symptoms of emotional instability, emotional shallowness, perversions, irritability, morbid fears, psychasthenia, social maladjustments, infantile dependency, etc. The psychopathic child is father to the psychopathic man. Once the significance of this type of child is grasped, ways and means for ameliorating his condition and forestalling its latter-day consequences can be found.

[Preventive hygiene.] — We need, perhaps, to develop a new type of school nurse, who, by supervision, corrective teaching, and home visitation, will undertake the concrete tasks of mental hygiene. The psychiatric school nurse would be a counterpart of the medical school nurse and work in close contact with her, but she would revolve in a different circle of problems. Instead of pupils with discharging ears and deteriorating molars, her clients would be the child with night terrors, the nail biter, the overtearful child, the oversilent child, the pervert, the infantile child, the unstable choreic. There should in time be schools, classes, and camps in close relation to city and state school systems where children of this type may go, for long or short periods, and secure a combination of medical and educational treatment which alone is adequate to reconstruct them mentally. These provisions imply neurological and psychiatric specialists, educational psychologists, and teacher nurses coöperating as public health experts in a work of mental salvage and prophylaxis. From a financial viewpoint these suggestions seem extravagant; but only by such radical and sincere methods can we ever hope to reduce the massive burden of adult insanity. Expensive in the beginning, a preventive

juvenile system of sanitation administered through the public schools may after all, prove to be a form of socialized thrift. . . .

Speech defective. — Stuttering children are sadly in need of attention, for as a rule they are neglected by both parents and physicians. Only those familiar with the subject can appreciate how serious this handicap is, what suffering it causes, and what effect it produces on the more sensitive child. Stuttering is a disease, often associated with serious mental and nervous complications, but it is definitely curable, and responds to corrective training. For many years European public schools have provided this speech-corrective work. To-day it is coming to be considered a natural function of the schools in this country, as shown by recent subsidy legislation in Ohio, Minnesota, Wisconsin, and elsewhere. New York started a class in 1909, and has demonstrated the possibility of reaching a relatively large number of speech-defective pupils by assigning them, for portions of a day and term, to a speech-improvement class and permitting them to remain in their regular room the rest of the time.

Mentally deficient. — Inborn and acquired deficiency of intelligence handicaps at least one child out of a hundred. In some respects this handicap is more serious than other forms already discussed; but in other respects it may actually be less serious for the individual and less burdensome to the State because it yields to social control.

In 1919–20 the National Committee for Mental Hygiene made a survey of provisions for mentally defective children. Thirty State and seventeen private institutions reported 26,774 children; 108 cities in the United States reported 1177 special classes providing for 21,251 defective pupils. We know that the number of cities reporting is incomplete. It is safe to say that the public schools of the country are providing special provisions for as many mentally defective children as are now cared for by institutions. Feeble-mindedness is more and more coming to be regarded as a public school problem. Newark, Rochester, Boston, New Haven, and other cities have demonstrated that it is possible to create, within the public school system, day schools for defective children which embody the best features of State institutions, and which offer significant evidence of the adaptability of our public school system. These special schools, and special classes as well, often provide for children whose mentality is no higher than that of the institutional imbecile. Their chief function, however, is the timely training of the moron along lines which will make him more secure, useful, and happy in his community.

Feeble-mindedness is, of course, incurable, and even the graduate of a special class may need to be sent to an institution; but public school training, supplemented by a system of community after care. will not only reduce enormously the necessity of institutional commitment, but also many of the classic consequences of feeble-mindedness — vagrancy, prostitution, dependency, crime — and more feeble-mindedness. . . .

Feeble-mindedness is both a State and a local problem, and to a remarkable extent it is a public school problem. A consistent development during the next generation of the policy of public school training and community supervision

of these handicapped children will prove that the problem of mental deficiency is not overwhelming, but, on the contrary, is manageable.

State policy. — This review of the different types of exceptional children is necessarily sketchy and imperfect. It reveals, however, a group of closely-related problems of great significance from the standpoint of child-welfare administration. It appears that the public school is a fundamental child-welfare agency with vast powers as yet only partly realized. Sanctioned by far-reaching law and by tradition and founded on the broad democratic principle of compulsory education, which carries it into the remotest rural corners, this great agency of the state must in large measure determine the future welfare of handicapped children.

There are several factors and considerations which favor the extension rather than the restriction of public school provisions for handicapped children. These are:

A. The principle of compulsory education.

B. The widespread distribution of public school facilities.

C. The growth of medical inspection of schools and of clinical child psychology.

D. The joint relations of state and local authority in school administration.

E. The relative economy of public school provisions.

F. The disadvantages of institutional segregation.

G. The desirability of maintaining the responsibility of the home.

H. The importance of fostering local responsibility and community control of social problems.

[The extension of compulsory education.] — The social significance of the principle of compulsory education has been well stated by Cubberley: "Neither does the state establish schools because by state coöperative effort they can be established and conducted more economically than by private agencies, but rather that by so doing it may exercise the state's inherent right to enforce a type of education looking specifically to the preservation and improvement of the state."

The creation of public school provisions for handicapped children represents a reasonable constructive, self-protective extension of the principle of compulsory education. This principle has justified, in spite of initial opposition, the development of medical inspection, the establishment of school nurses and clinics, and the certification of juvenile employees.

Public school provisions for exceptional children began through local initiative, but the States of the Union are now framing legislation and organizing subdivisions within their State Departments of Education, through which they will exercise their fundamental jurisdiction. Connecticut, in 1915, appointed a school psychologist under the State Department of Education, and in 1920 passed a law creating a director of special classes. Wisconsin, Pennsylvania, New York, Massachusetts, and Wyoming are among the states that have a special organization for supervising and directing the education of handicapped children.

[The state and the handicapped child.] — The functions which naturally fall to the state in the public care of handicapped children may be briefly summarized as follows:

1. To issue and enforce regulations regarding school enumeration and school registers, which will result in the reporting of all children of school age who, because of serious handicap or exceptional physical and mental condition, cannot be properly educated or trained under ordinary conditions. This would result in a simple form of registration very important for child welfare and social welfare.
2. To issue regulations and printed forms, and to render expert advice and assistance in the educational measurement and mental examination of handicapped or exceptional school children, including children passing through the children's court.
3. To furnish similar direction and assistance in the organization of special classes.
4. To initiate and direct special educational measures in behalf of exceptional pupils who cannot be assigned to special classes, schools, or institutions.[1]
5. To administer the distribution of state aid for special classes and auxiliary education.
6. To maintain general relations with all schools conducted in connection with special state or county institutions for dependent, neglected, defective, and delinquent children.
7. To foster and direct, as far as expedient, measures of vocational guidance and supervision for the benefit of educationally exceptional or handicapped youth up to the age of eighteen or twenty.

These powers are a natural expression of the relation of the state to children and to education. It should also be recognized that they imply a responsibility to handicapped children of compulsory school age who may be attending private and nonpublic schools or who may not be attending school at all. This responsibility must be carefully exercised, but it cannot be evaded. As in child hygiene the most primary necessity is a registration of birth, so in the case of exceptional school children the most elementary obligation of the state is the enumeration and registration of *all* seriously handicapped school children.

Through the school census and school register, over which the state has fundamental control, let us find out how many school children are thus handicapped, where they are, and how badly they need our help.

This solicitude must be gradually extended into the preschool age.

[1] This particular function, though of extreme importance, is one which remains almost completely undeveloped. Measures must and can be found which will reach the handicapped child in rural and village communities. Through special courses in normal schools, special visiting supervisors, special training centers, school nurses, and circulating auxiliary teachers, a technique can be worked out which will remove the present neglect of the handicapped child in the smaller community. When a special class cannot be provided a special program for the individual handicapped child must be created.

SOME FACTS ABOUT SUPERIOR CHILDREN*

LEWIS M. TERMAN

Neglect of superior children. — The attention of teachers is constantly being called to the large number of defectives among school children, and to the educational and social problems to which they give rise. For the intellectually superior, however, the ones upon whose preservation and right education the future of civilization most depends, no special provision is made. In the average school system their very existence, even, is ignored. Yet, they are just as numerous as the dull and mentally defective. The latter attract attention by their inability to do the work and by their maladjustment to school discipline. Children of superior ability are often submerged with the masses simply because they are not recognized.

[Fear of precocity.] — Another thing that has blocked the educational path of the gifted child is the widespread belief that intellectual precocity is pathological, that exceptionally bright children are usually unhealthy and likely to become physical or mental wrecks if their intellectual interests are at all stimulated. Recently, however, the truth of the traditional belief has come more and more under suspicion. Such studies as have been made of gifted children have not disclosed the pathological symptoms popularly supposed to accompany exceptional intellectual ability. On the contrary, wherever the experiment has been tried of providing such children larger and richer opportunities the results have been surprisingly gratifying. When favored with extra promotions they make good in the higher grade without injury to health; when given the advantage of a broader and richer course of study their minds expand and take the wide swath as easily as they had taken the narrow one.

[Selection of children for study.] — Instances of this kind coming to our attention from time to time led us some years ago to undertake the more or less systematic study of exceptionally superior children. With the help of Margaret Hopwood Hubbard and other Stanford University students, we have secured Binet tests of some eighty California children having an I Q above 135.[1] All but a few of these tested 140 or above. Fifty-nine of the group were subjected to a rather careful study. . . .

The fifty-nine subjects composed two groups, which will be designated as the Alameda Group and the Miscellaneous Group.

The Alameda Group included twenty-four subjects selected by systematic search throughout the public schools of Alameda, California. . . .

The tests on the Alameda group revealed the following interesting facts:

1. The average scores of these superior children were higher than the average of any of the grades of the city with the exception of the high eighth. In addition and spelling they even excel the high eighth.

* From *The Intelligence of School Children*, Chapter X, "Some Facts about Fifty-nine Superior Children," and Chapter XI, "Case Studies of Forty-one Superior Children." By permission of, and by arrangement with, Houghton Mifflin Company, the authorized publishers. 1919.

[1] See footnote on p. 92.

2. Of the six pupils in the low-fifth grade, four were above the eighth-grade median in addition and subtraction, two above the eighth-grade median in multiplication, two in spelling, and one in division.

3. One girl, aged 10 years 2 months, low-fifth grade, I Q 148, practically doubled the score of the high eighth grade in addition, subtraction, and multiplication, and did considerably better than the eighth grade in division and spelling.

4. Two of the six pupils in the low-fifth grade made scores in arithmetical reasoning about 50 per cent higher than the city's median for the high-seventh grade.

5. In arithmetical reasoning, the subject which more than any other taxes the real mental ability of the pupils, the average score of the eighteen pupils was nearly two grades above the city average for the grades in which they were located. . . .

Age of learning to read. — Learning to read considerably in advance of the normal age of six is a significant indication of superior ability. It is ordinarily not until the mental age of six years that children are able to learn to read as first-grade children are normally expected to do. The child of four years who learns to read as readily as the average child of six, will almost certainly test as high as 150. . . .

Play and recreation. — It is generally believed that children of exceptional intellectual ability are likely to have little interest in play. We sought information on this point from the teachers, rather than from the parents, in order to secure an impartial judgment based on a knowledge of many children. Of fifty-one for whom data were secured, thirty-eight were described by both teachers and parents as entirely normal in their play. Seven of the others were said to play less than average children, but to play normally when they do play. . . . The abnormalities of play life do not appear to be more numerous or more serious than would be found in any group of children picked at random from the school population. . . .

[**Social relations.**] — There are two reasons why a rather large number are graded below average in social adaptability and leadership: (1) In school most of them are associated with children who are older and whose greater physical maturity gives them an advantage over our young and inexperienced subjects in play activities. . . . (2) In a few instances the child of superior mental ability does not care to play. His preference for reading and private lessons prevents him from becoming a leader or an important member in a social group. . . . The proportion of leaders is probably larger than would be found in a group of unselected children.

Moral traits. — About half the twenty traits on which our subjects were rated might be classified as moral traits. "Obedience," "conscientiousness," "dependability," "unselfishness," "evenness of temper," and "will power" belong very definitely to this group. . . .

In all of the moral traits except "unselfishness," the teachers' ratings were higher than those of parents. The children were rated higher by their teachers

in deportment than in a majority of their studies. The average rating on deportment was 1.54, a record equaled by only three of the school studies, and not considerably exceeded by any.

These ratings would indicate that our subjects are about as superior morally as they are intellectually. . . .

Social status and heredity. — We have classified our children according to the occupational status of the fathers, basing the classification upon Taussig's five occupational groups.[1] . . .

The results indicate that parents of a grade of intelligence low enough to keep them in the unskilled or semi-skilled class are not likely to produce children of the grade of ability represented in this study. Of the seventeen subjects testing above 150 I Q, sixty-five per cent belonged to class 1, thirty-five per cent to class 2, and none to class 3. Several children of the two lower social groups were brought to our attention and were tested, but in no case was the I Q above 130. There is a tendency on the part of teachers to overestimate the intelligence of such children. The laborer's child of 130 I Q attracts about as much notice as a college professor's child testing at 150.

Information was sought regarding the child's brothers and sisters, parents, grandparents, cousins, uncles, aunts, and any other relatives of superior ability. Twenty-nine of the parents mentioned relatives whom they considered superior. Fifty-one superior uncles, thirty-seven superior aunts, and numerous cousins and remote relatives were mentioned. The large majority of the children had at least one grandparent known to be a superior. . . .

[Persistence of superiority.] — Exceptional brightness in children is often regarded as merely a matter of precocious development, the assumption being that the final level attained is ordinarily no higher than in the case of children who test at average-normal. This assumption finds no support in any of the exact observations that have been made. Several studies have shown statistically that children who make exceptionally good records in the lower grades also as a rule make superior records in the high school, and the correlation between high-school grades and college grades has been found to be positive and high. We have had a number of superior children under observation for six to eight years, and in no case has there been any indication of a tendency toward deterioration to the level of average. . . .

Conclusions. — The data which have been presented justify the following tentative conclusions:

1. That intellectually superior children are apparently not below the average in general health;

2. That in the vast majority of cases their ability is general rather than special or one-sided;

3. That the superiority is especially marked in moral and personal traits;

4. That "queerness," play deficiency, and marked lack of social adaptability are the exception rather than the rule;

[1] Taussig, F. W. — *Principles of Economics*, Vol. 2, pp. 134–138. The Macmillan Company.

5. That while superior children are likely to be accelerated on the basis of chronological age, they are usually two or three grades retarded on the basis of mental age;

6. That their school work is such as to warrant promotion in most cases to a grade closely corresponding to the mental age;

7. That the superiority tends to show early in life, is little influenced by formal instruction, and is permanent;

8. That superior children usually come from superior families. . . .

Opportunity classes. — The responsibility for the right education of superior children belongs with the school. If the opportunities now offered are not suitable, it is the duty of the school to provide something better. While some relief is furnished by an elastic system of promotion which will allow the superior child to skip a half grade occasionally, this should be regarded as a makeshift rather than a final solution of the problem. The contribution of the school must be more positive and more educational. If the needs of superior children are to be met, special classes and special courses will have to be provided. The advantages of such classes are many.

(1) They allow children to make rapid progress without skipping vital parts of the subject matter;

(2) They allow a broadening and enriching of the course of study because of the larger accomplishments possible to superior minds;

(3) They are a discouragement to vanity because the level of competition is raised and the measure of a child's success depends upon his relative standing in the class;

(4) They insure the mental and moral training which can come only from sustained effort;

(5) They furnish an atmosphere which is intellectually much more stimulating than that found in the average class;

(6) Since they bring together children of similar age and attainments, they go far to solve the problem of social adjustment.

Wherever "opportunity classes" for bright children have been tried they have proved an immediate and surprising success. The children are touched by new life and inspired with new enthusiasm. That two or three grades are usually covered in one year is perhaps a matter of secondary importance compared with the intellectual awakening and the intensification of effort which such classes provoke. The results have been so uniformly successful that the special class for gifted children may be considered to have passed the experimental stage.

JUVENILE DELINQUENCY*

ERNEST R. GROVES

Crime problems. — In the study of juvenile delinquency one must first of all recognize the meaning of bad conduct on the part of boys and girls.

* From *Social Problems and Education*, Chapter I. Copyright, Longmans, Green and Company. 1925.

Delinquency is not necessarily an expression of immorality. Whether or not the delinquent act may be some form of vice, it must be thought of as a form of social maladjustment. All delinquency, whether intrinsically evil or merely behavior out of conformity to the adult regulations, is primarily the expression of the difficulty the juvenile meets in trying to adjust himself to wholesome adult standards of our present complex social life. At bottom it is the problem of an individual with untrained impulses and undisciplined emotions attempting to bring his conduct into conformity with the social standards of to-day. The problem therefore is not merely that of the juvenile; it represents a difficulty realized by every human being who finds inclination going one way and social requirement another. If adults meet this ordeal of adjustment constantly throughout their lives it is not strange that children have the same trouble to a much larger extent. . . .

Mechanisms of bad conduct. — The knowledge of the mechanisms of conduct that have been discovered by specialists on delinquency is most likely to be helpful. Such a classification does not by any means exhaust the causes that influence bad conduct, but it does bring out the kind of cause that is of most importance for the teacher and social worker to keep in mind.

First come *will-to-power* tendencies. Every normal human being has an urge toward self-expression. These self-assertive cravings that belong to all of us can easily be perverted and brought to an expression that is socially unwholesome. In this way self-assertion becomes the motive for delinquent conduct. The will-to-power cravings are sometimes intensified by the child's protest against hard circumstances. Personal or family conditions that create mental dissatisfaction of any sort as a result of the suffering they produce or because they curb normal self-assertion easily bring about some unsocial expression of self-assertion. For example, the boy at twelve or thirteen may suddenly awaken to the fact that he is seriously handicapped in some respect as compared with other boys. To get his mind off his disadvantage he often turns to bad behavior that soon gets him into difficulty. Any kind of experience that seems to the child to destroy the respect of his fellows or to bring him into social disfavor tempts him to bad conduct. Poverty, for instance, makes him eager to bully and to practice stubborn disobedience. The badly dressed boy not only enjoys picking on the child that wears better clothes than he does, but he is most happy when he achieves leadership by defying authority. His inner protest easily goads him to open rebellion, especially when this permits him to act the hero and win the admiration of those more fortunate than he.

The girl is no less likely to react to poverty than the boy, but she is less willing to express her state of mind by open rebellion, though she occasionally does. The girl's protest is usually less openly expressed than the boy's because, in conformity with present social convention, she is less aggressive, realizing that outspoken protest will be liable to make her situation all the more noticeable.

The child who has a serious physical handicap may, in the same manner

as the poorly dressed boy, find great relief for his hampered self-assertion in some form of delinquency. If he is deformed or has some other physical defect or is constantly irritated by physical ailments that need attention, he easily switches to delinquency as a means of relief. If either of these boys falls upon some wholesome means of satisfying his desire for favorable attention, such as superiority in studies, things go well with him; if he can not satisfy his desire for recognition in legitimate ways he easily becomes a rowdy or a trouble maker. If in some manner he can be made to feel his deficiency less keenly or if some happy way of finding wholesome satisfaction for his thwarted urge for self-assertion can be suggested to him, his sympathies can be won by those in authority and thus he can be directed to wholesome adjustment.

There is always risk, however, in dealing with such a boy, of making him feel that he is feared and that someone is trying to buy his support. If he gets the idea that his power is feared he goes still further in his bad conduct.

[**The grudge.**] — Another type of will-to-power motive that appears in delinquency is the antisocial grudge. This comes about from the child's taking emotional hostility from an earlier experience and bringing it over to operate at some later time against somebody who has had nothing to do with the first occurrence. It may be that the boy has deep-seated hostility because he thinks he was publicly shamed by some teacher, and he brings the emotions connected with this episode into his relations with some other teacher who is treating him with the utmost consideration and kindness. Having had his self-assertion crushed, he develops chronic bitterness and immensely enjoys pouring out his grudge against a perfectly innocent victim. This antisocial grudge starts the child on the highway toward crime. His unreasonable hostility flames into passion at the slightest opportunity until he does some desperate act which brings him in trouble with the law. . . .

The antisocial-grudge motive is not merely the product of harsh treatment. The disposition of the individual has to be taken into account. The ridicule and punishment that roll lightly off one boy will be deeply resented by another, and constantly thought about. The sensitive child or the child of very keen pride will mull over in his thinking any treatment that seems to him to be unjust until so far as his emotions are concerned he becomes a rebel, eager to attack some form of authority. Although this attitude of mind will not necessarily drive him into crime it is exceedingly easy for the boy moved by feelings of a chronic grudge to develop a criminal career if only the social situation be such as to encourage this form of self-assertion. . . .

[**Need for excitement.**] — A certain emptiness of life bears heavily upon the city boy, particularly when the environment is constantly stimulating him but not giving him any outlet for free activity. Excitement is the youth's normal human craving, and if he can not have it in ways that conserve the welfare of the social group he will snatch at the thrills of unlawful behavior. . . .

Many a boy who otherwise would find no intensely satisfying thing to do gets relief by identifying himself with the hero of some melodrama. The fact

that he gets satisfaction keeps him from entering upon some active criminalistic behavior. In such cases one can not be sure that the boy will be content with imaginings. At any time suggestion may become so strong as to turn him from this passive identification with heroes of the film to active rehearsal of the things that have gripped his attention. At best the moving picture of this sort is a risky substitution on the lower level of the boy's craving for adventure, but in some cases it doubtless turns the boy away from the more dangerous adventure that he would pursue if his life were entirely devoid of excitement. . . .

[**Conflicts.**] — Another group of causes that operate to produce delinquency may be gathered under the title *emotional conflict.* What is known as mental conflict seriously disturbs personal behavior and therefore occasionally becomes a cause of bad conduct. These conflicts often come from some experience in the first years of childhood, but become most upsetting during the adolescent period. They are disturbances that result from conflicting elements in the inner life of the child. Those who have had much to do with childhood delinquency realize that these disturbances often have to do with sex in one form or another. This is not strange when one takes into account the unusual opportunity sex has to bring about emotional attitudes, because the sex instinct is more stringently repressed by social standards than other instincts and also because the attitude of taboo that society takes toward matters of sex frequently creates in a child an intense curiosity regarding a matter that has clinging about it such a quantity of mystery. Impulses of sex are at times precociously and artificially stimulated by conditions of modern life, particularly in our cities; and the length of the adolescent period makes the strain of adjustment for the boy or girl very great. It is not surprising that this instinct should cause so much emotional conflict. In view of these conditions it is unfortunate that so little is done by adults to help children pass easily through their period of stress.

Sex is not, however, the only cause of emotional conflict. Another prolific cause of emotional conflict in the child is doubt concerning his own parentage. Adopted children and illegitimate children sometimes suffer a very keen emotional conflict which ends in bad social behavior when for the first time they are told the true facts regarding their parentage. Jealousy toward a stepparent also becomes a cause of emotional conflict. Any deceit practiced upon a child, any apparent failure in trustworthiness on the part of a relative or friend may call up in the child intense suspicion and emotional disturbance.

Another cause of mental conflict comes about when the child knows that he is falsely suspected, and a sense of shame is created by his knowledge that others are thinking ill of him without basis. Unjustified criticism in public and any false accusation have in them the possibility of a conflict that will switch a child from good behavior to bad. Of course the more sensitive the child, the more easily these emotional conflicts make trouble for him. The conflict can not be understood by considering only the event that brought it about; the character of the personality that responds to the occurrence is the more

significant element. What means little to one child becomes a terrifically dangerous experience to another. . . .

[**Suggestibility.**] — Another group of delinquents with little self-control are those excessively open to suggestibility. There are great differences in children as well as adults in their response to suggestion. Those who are abnormally responsive to suggestion, whether it comes from individuals or from a crowd, are easily led into delinquency. Even though they may recognize the unlawful character of their act they are sometimes possessed with an overwhelming impulse to do the thing that has been suggested. They take over the opinions and standards of their associates with little discrimination and run the risk of all sorts of exploitation. The fact that they can be made a tool for the working out of somebody else's purpose at times causes them to commit a crime with very little motive except the suggestion that has worked upon them. This abnormal suggestibility may be found among individuals who are otherwise normal as well as among those who are mentally defective or psychopathic. . . .

The Juvenile Court. — One of the wisest reforms in our judicial procedure has been the origin of the juvenile court. It had its first development in Chicago. In its inception it represented the problem of advancing the age limit demarcating the period during which the child could be treated as not responsible for his conduct in the adult criminal sense. The juvenile court also freed itself from the orthodox methods of the criminal court by placing its work upon the basis of chancery or equity jurisdiction. The Juvenile Court Law of Chicago was an extension of this idea of guardianship, bringing all delinquent children into the group of those who needed the protection and guardianship of the state. The need of this reform was exceedingly great and the movement developed rapidly after the Chicago court was started. . . .

The most promising thing in the development of the juvenile court was the recognition of the need of studying the child to give him the treatment that was best for him without reference to the treatment of other actual or potential delinquents. As the result of this emphasis upon understanding the child and working out remedial treatment for him, the science of conduct has had an opportunity to influence the juvenile court in a way impossible in the ordinary criminal court. This has permitted the juvenile court to square itself with modern science in a way denied a court that deals in the orthodox fashion with criminals. In the juvenile court legal procedure has freed itself of the primitive motive of vengeance and established the scientific attitude toward problems of social conduct.

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